

SOUTHWESTERN ELECTRIC POWER COMPANY  
P. O. BOX 21106 • SHREVEPORT, LOUISIANA 71156-0001

RICHARD H. BREMER  
PRESIDENT  
CHIEF EXECUTIVE OFFICER

TEL. 318-222-2141  
FAX 318-222-8637

July 13, 1994

Mr. E. Michael Williams  
Vice President, Fossil Generation  
CENTRAL AND SOUTH WEST SERVICES, INC.  
P. O. Box 660164  
Dallas, Texas 75266-0164

RE: AGENCY APPOINTMENT

Dear Mr. Williams:

The Delaware General Corporation Law and Article VII, Section 2 of the Bylaws of Southwestern Electric Power Company (SWEPCO or the Company) authorize the President of the Company to appoint agents to act on behalf of SWEPCO. Pursuant to this authority, I am hereby appointing and empowering E. Michael Williams, Vice President, Fossil Generation, Central and South West Services, Inc. (CSWS), or any duly appointed successor in office (Fossil Generation Agent) as an agent of SWEPCO with authority and responsibility for acting on SWEPCO's behalf in all matters related to engineering and consulting services, operation, maintenance, construction and projects for Fossil Generation and hydroelectric power plants and all matters related necessary or incidental thereto (collectively "Fossil Generation Management").

In such capacity, the Fossil Generation Agent is authorized and empowered, in the name and on behalf of the Company, acting alone, to execute such contracts, agreements and other instruments relating to Fossil Generation Management, to institute, prosecute, defend or settle any action, suit, arbitration and other form of dispute resolution, litigation or other proceeding related to Fossil Generation Management before any court, administrative agency or other forum and to retain counsel, expert witnesses and consultants and to execute or file any pleadings or other instruments in connection therewith, and to take such other action with respect to Fossil Generation Management as Fossil Generation Agent shall deem necessary and in the best interest of the Company, and is further authorized and empowered to delegate any or all of Fossil Generation Agent's foregoing responsibility and

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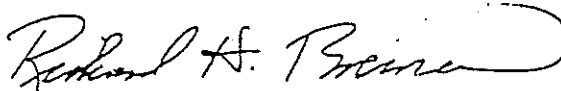
REGISTRATION PERMITS  
APPLICATIONS TEAM

authority to the person designated by Fossil Generation Agent as Director, ERCOT Region, of CSWS, the person designated by Fossil Generation Agent as Director, Support Services, of CSWS and/or the person designated by Fossil Generation Agent as Director, SPP Region, of CSWS.

Such agency shall become effective on July 12, 1994 and shall continue as set forth herein until modified, suspended or terminated by action of the President or Board of Directors of SWEPCO.

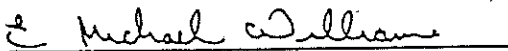
Please acknowledge your receipt and acceptance of this letter of appointment by signing and returning the enclosed copy. This letter will then be forwarded to the Treasurer of SWEPCO for filing among the Company's records.

Very truly yours,



Richard H. Bremer  
President and CEO of  
SOUTHWESTERN ELECTRIC POWER COMPANY

Received and accepted  
this 13 day of  
July, 1994.

  
E. Michael Williams  
Vice President, Fossil Generation  
CENTRAL AND SOUTH WEST SERVICES, Inc.

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SIGNATURE PAGE

FACILITY OPERATOR:

(THIS ONLY APPLIES IF THE OPERATOR IS REQUIRED TO APPLY AS CO-PERMITTEE)

[I, \_\_\_\_\_ (Typed or Printed Name) \_\_\_\_\_ (Title)

certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for known violations.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

NOTE: ALL APPLICATIONS MUST BEAR THE SIGNATURE AND SEAL OF NOTARY PUBLIC.

SUBSCRIBED AND SWORN to before me by the said \_\_\_\_\_ on

this \_\_\_\_\_ day of \_\_\_\_\_ , \_\_\_\_\_

My commission expires on the \_\_\_\_\_ day

of \_\_\_\_\_ , \_\_\_\_\_.

(Seal)

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
County, Texas

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WAS... PERMITS  
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All Applicants Should Complete the Following Items

Permit Number: 01811

Address for receiving Self-Reporting/DMR forms:

Provide the address to be used for receiving self-reporting/DMR forms from the TNRCC. The address given in item 1 of the application will be used if a different address is not provided in the space.

Welsh Power Plant  
Rt. 4, Box 221  
FM 1735 - Storeroom 65  
Pittsburg, TX 75686  
Attn: Mike Clifton

Permit Number: 01811

Address for receiving Annual Billing Invoices:

Provide the address to be used for receiving invoices of Annual Water Quality Assessment and Wastewater Treatment fees assessed, September 1. The address given in item 1 of the application will be used if a different address is not provided in the space.

Central and South West Service, Inc.  
1616 Woodall Rodgers Freeway  
Dallas, TX 75202  
Attn: David Hall (N6 ENV)

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WASTEWATER PERMITS  
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TECHNICAL REPORT  
FOR INDUSTRIAL WASTEWATER DISCHARGE PERMITS

(Revised December 1998)

The following information (Items 1-16) must be provided as a minimum to support an industrial wastewater permit application. All attachments (Attachments A-J) need to be reviewed and completed as directed. Do not refer to supplemental reports in lieu of filling out these minimum requirements. If an item does not apply to your facility write N/A to indicate that you have considered it. Please do not include information concerning storm water discharges which are authorized and regulated by an EPA promulgated general permit.

ITEM 1 IS ONLY REQUIRED FOR EXISTING PERMITTED FACILITIES SUBMITTING AMENDMENT APPLICATIONS.

1. Are you requesting an amendment of an existing permit?

YES   X   NO       

If YES, discuss the scope of any permit changes being requested. Explain why the permit amendment is needed and provide supplemental information or additional data that will support the request.

See Attachment T

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WASTEWATER PERMIT  
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ITEM 2 IS ONLY REQUIRED FOR EXISTING PERMITTED FACILITIES SUBMITTING RENEWAL APPLICATIONS.      N/A

2. Are you requesting any minor changes to the permit which include correcting typographical errors, changing the construction schedule for a new source discharger, and/or removing a point source outfall? (Please note that changes such as reductions in monitoring frequencies, removal of effluent limitations, addition of wastestreams, etc., are not considered minor changes.)

YES        NO       

If YES, list and discuss the requested changes.

ITEMS 3-16 ARE REQUIRED FOR ALL (NEW, AMENDMENT, AND RENEWAL) PERMIT APPLICATIONS.

3. FACILITY/SITE INFORMATION:

- a. Describe the type of facility and industrial or commercial activity at the plant. Provide a detailed description of the processes at the facility which generate wastewater. Your description should include information such as any modifications to your process water/storm water handling facilities, the start-up or shutdown of any process or treatment units, any wastewater recycle projects, or any changes in production throughput.

See Attachment P

- b. Describe the general nature of your business and list any Standard Industrial Classification codes that apply.

Steam Electric Power Generation

SIC Code(s) 4911 , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

- c. Provide a list of raw materials, major intermediates, and products handled at your facility. Provide corresponding Chemical Abstracts Systems (CAS) numbers. Be specific and avoid trade names. For commercial (non-manufacturing) facilities, provide a list of chemicals used on-site which could impact effluent quality. (Attach additional pages if necessary.)

RAW MATERIALS

Coal  
Water  
Air

INTERMEDIATES

Steam

PRODUCTS

Electricity

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d. Business operates 24 hours/day 7 days/week 12 months/year.

Will the discharge/disposal be seasonal?        YES   X   NO.

If YES, please explain.

N/A

- e. List any physical, chemical, and/or biological treatment processes that you use for the treatment of wastewater at your facility. This list should be specific and include each unit in the treatment process and dimensions (e.g. dissolved air floatation, chemical precipitation, equalization, pH control, aeration, steam stripping, clarification, anaerobic lagoon). Please specify the associated outfall for each treatment unit and which wastewaters are chlorinated prior to discharge.

Treatment Units:

pH neutralization for various low volume waste streams

Cyclone separator and settling basin for solids removal from bottom ash  
Waste streams

- f. Attach a flow schematic showing each treatment unit (including any lagoons, ponds or impoundments) and all sources of wastewater flow into the treatment plant and to each outfall. This schematic should include process wastewater, cooling water, domestic wastewater, and storm water. A water balance using average flows for each waste stream must be included. (See Attachment J for example.)

See Attachment J

- g. Attach a facility map (drawn to scale) showing: See Attachment Q

- (1) Production areas, maintenance areas, materials handling areas, and waste disposal areas.
- (2) The location of each unit of the wastewater treatment plant including the location of sumps and impoundments.
- (3) The accurate location of water supply wells and ground water monitoring wells.
- (4) The location of outfalls and the outline of the drainage area that flows to each outfall that contains storm water.

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4. Please provide the following information concerning each outfall for discharge and each final point of effluent disposal for no-discharge operations: a) describe the location of each discharge outfall (e.g. Outfall 001; at the outlet weir of the treatment plant prior to entering the river) and the sampling location (if different); b) please complete the table to describe discharge or disposal operations; and c) provide a list of the wastestreams (e.g. process wastewater, cooling tower blowdown, once through cooling water, sanitary wastewater) to be discharged or disposed of via this permit.

OUTFALL	LATITUDE			LONGITUDE			DESCRIPTION OF LOCATION	
	DEG	MIN	SEC	DEG	MIN	SEC		
001	a.	33	02	54	94	50	26	Southern end of secondary ash pond
	b.	Discharge or Disposal Method*	Flow hrs/day	Daily Average Flow MGD**	Daily Maximum Flow MGD**	I or C***	P or G****	Type of Flow Measurement Device
		D	24	14	15	C	G	weir
	c.	CONTRIBUTING WASTESTREAMS						
		Ash transport water. Low volume wastewater, coal pile runoff.						

OUTFALL	LATITUDE			LONGITUDE			DESCRIPTION OF LOCATION	
	DEG	MIN	SEC	DEG	MIN	SEC		
002	a.	33	03	25	94	50	14	On south side of facility adjacent to the intake structure
	b.	Discharge or Disposal Method*	Flow hrs/day	Daily Average Flow MGD**	Daily Maximum Flow MGD**	I or C***	P or G****	Type of Flow Measurement Device
		D	24	0.004	0.004	I	P	weir
	c.	CONTRIBUTING WASTESTREAMS						
		Domestic wastewater						

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- \* Please indicate the method of wastewater discharge/disposal:  
D = Discharge; I = Irrigation (Land Application);  
E = Evaporation; S = Subsurface Disposal (Septic Tank/Drain Fields)
- \*\* Please state the flow you are requesting to have authorized by this permit application.
- \*\*\* Please indicate whether the flow is (I) Intermittent or (C) Continuous.
- \*\*\*\* Pumped or gravity flow. If pumped, indicate pump capacity (gpm).

OUTFALL	LATITUDE			LONGITUDE			DESCRIPTION OF LOCATION	
	DEG	MIN	SEC	DEG	MIN	SEC		
003	a.	33	03	20	94	50	14	End of discharge from condensers
	b.	Discharge or Disposal Method*		Flow hrs/day	Daily Average Flow MGD**	Daily Maximum Flow MGD**	I or C*** P or G****	Type of Flow Measurement Device
		D	24	983	1,218	C	P	Pump Curves
	c.	CONTRIBUTING WASTESTREAMS						
		Once through cooling water						

OUTFALL	LATITUDE			LONGITUDE			DESCRIPTION OF LOCATION	
	DEG	MIN	SEC	DEG	MIN	SEC		
101	a.	33	03	20	94	50	23	Metal Cleaning pond north of facility
	b.	Discharge or Disposal Method*		Flow hrs/day	Daily Average Flow MGD**	Daily Maximum Flow MGD**	I or C*** P or G****	Type of Flow Measurement Device
		D,E	N/A*	N/A*	N/A*	I*	P	Estimate
	c.	CONTRIBUTING WASTESTREAMS						
		Metal Cleaning waste						
		*There is normally no discharge from this outfall.						

OUTFALL	LATITUDE			LONGITUDE			DESCRIPTION OF LOCATION	
	DEG	MIN	SEC	DEG	MIN	SEC		
	a.							
	b.	Discharge or Disposal Method*		Flow hrs/day	Daily Average Flow MGD**	Daily Maximum Flow MGD**	I or C*** P or G****	Type of Flow Measurement Device
	c.	CONTRIBUTING WASTESTREAMS						

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5. For each outfall regulated in your existing permit which requires you to monitor or report the flow, report the average and maximum values from the Monthly Effluent Reports for the previous 24 months regardless of the required monitoring frequency. Indicate the total number of excursions (NE) over the last 24 months.

Monitoring Start Date November 1997 Monitoring End Date October 1999

OUTFALL	-----FLOW (MGD)-----			FLOW (MGD)		NUMBER OF SAMPLES
	AVERAGE OF DAILY AVERAGE VALUES	MAXIMUM OF DAILY AVERAGE VALUES	NE	MAXIMUM OF DAILY MAXIMUM VALUES	NE	
001	14	15	0	26	0	730
002	0.004	0.004	0	0.004	0	730
003	983	1,218	0	1,218	0	730
101*	—	—	0	—	0	—
*No Discharge during previous 24 months						

6. For each outfall that discharges storm water runoff and is to be regulated by this individual permit, provide the following information (please refer to Attachment K for guidance): N/A

a. Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)

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- b. Describe any treatment for storm water runoff for each outfall.

c. List the local area rainfall and your source of information.

Average rainfall for wettest month. 5 in/month (May)

25-year 24-hour rainfall. 9.2 inches

Source: National Weather Service

7. Is your treatment facility located above the 100-year frequency flood level?

X YES        NO

Source of information: National Weather Service

If NO, then please provide the elevation of the 100-year flood plain, the elevation of the treatment facility, and a description of what protective measures are in use or planned to prevent flooding of the treatment facility?

8. INDUSTRIAL SOLID WASTE MANAGEMENT:

a. Are hazardous wastes treated, stored, or disposed of within the wastewater treatment system at this facility?

       YES X NO

If YES, list the EPA hazardous waste number(s) and the units within the wastewater treatment system used to treat, store, or dispose of hazardous wastes. Show the location of these units on the site map.

N/A

b. Locate all active and inactive hazardous and non-hazardous solid waste storage, treatment and/or disposal sites on a facility map.

c. Describe the management of storm water runoff for the solid waste disposal site(s).

The solid waste disposal site is managed so as to prevent storm water that has come in contact with solid waste from discharging to the land surface or Welsh Reservoir.

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d. Is any leachate collected from the solid waste disposal site(s)?

YES \_\_\_\_\_ NO X

If YES, describe the leachate collection, treatment and disposal method.

9. DOMESTIC SEWAGE, SEWAGE SLUDGE, AND/OR SEPTAGE MANAGEMENT AND DISPOSAL:

Please check the appropriate method(s) of domestic sewage and domestic sewage sludge treatment/disposal and complete Attachment F if directed.

\_\_\_\_\_ Domestic sewage is not generated on-site. PROCEED TO QUESTION NO. 10.

X Facility is connected to a wastewater treatment plant permitted to receive domestic sewage or domestic sewage is transported off-site to a permitted facility for treatment and/or disposal. PROVIDE THE NAME AND TNRCC, NPDES, and/or TPDES PERMIT NO. OF THE PLANT WHICH RECEIVES THE DOMESTIC SEWAGE. IF HAULED BY MOTORIZED VEHICLE, PROVIDE THE NAME AND TNRCC REGISTRATION NO. OF THE HAULER. The plant that receives the sanitary sewage sludge is the city of Lone Star, TX waste water treatment plant. The permit number for the wastewater treatment plant is 12411-01. The permit number of the transporter - Allwaste Environmental Services, Inc. is 002, also referenced as Texas Department of Health (TDH) number 20124.

\_\_\_\_\_ Industrial wastewater and domestic sewage are commingled prior to wastewater treatment.

\_\_\_\_\_ Industrial wastewater and domestic sewage are treated separately. Domestic treatment sludges and/or domestic septage are commingled with industrial wastewater treatment sludges prior to sludge use or disposal. COMPLETE ATTACHMENT F OF THIS APPLICATION.

\_\_\_\_\_ Industrial wastewater and domestic sewage are treated separately. Domestic treatment sludges and/or domestic septage are NOT commingled with industrial wastewater treatment sludges prior to sludge use or disposal. COMPLETE ATTACHMENT F OF THIS APPLICATION.

\_\_\_\_\_ Domestic sewage is disposed of by on-site septic tank. COMPLETE ATTACHMENT F OF THIS APPLICATION.

\_\_\_\_\_ Other (Please provide detailed description).

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WASTEWATER PERMIT APPLICATIONS SECTION

10. Do you receive wastes from off-site sources for a) treatment in your facility, b) disposal on-site via land application (irrigation, evaporation, etc.), and/or c) discharge via a permitted outfall?

\_\_\_\_\_ YES   X   NO

If NO, go to Item 11. If YES, proceed as directed.

- a. Do you receive wastes, for treatment at your facility, from off-site sources which are directly related to the on-site activities conducted at your facility?

\_\_\_\_\_ YES \_\_\_\_\_ NO

If YES, provide a list of the waste(s) received (including volumes, characterization, and compatibility with on-site wastes), identify the source(s) of the waste(s) (name and address of the generator), and describe the relationship of the waste source(s) with your facility's activities.

- b. Is wastewater from a TNRCC, NPDES, and/or TPDES permitted facility commingled with your wastewater after your final treatment and prior to discharge via your final outfall or disposal on-site via land application?

\_\_\_\_\_ YES \_\_\_\_\_ NO

If YES, provide the name, address, and TNRCC, NPDES, and/or TPDES permit number of the contributing facility and a copy of any agreements and/or contracts relating to this activity.

- c. Is your facility a Publicly Owned Treatment Works (POTW) that accepts process wastewater from any Significant Industrial User (SIU) and has on-site required to have an approved pretreatment program under the NPDES/TPDES program?

\_\_\_\_\_ YES \_\_\_\_\_ NO

If YES, then complete Attachment G of this permit application as directed.

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11. SIGNIFICANT LEAKS AND/OR SPILLS

Please provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility within the last three (3) years. Include the approximate date and location of the spill/leak, and the type of material and amount of material released.

N/A

12. COMPLIANCE HISTORY

Are you currently required to meet any implementation schedule for the construction, operation, or upgrading of your wastewater treatment equipment? This requirement includes Federal, State, or local authority permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, or grant and loan conditions.

\_\_\_\_\_ YES   X   NO

If YES, provide a brief summary of the requirements.

13. Radioactive materials shall not be discharged in excess of the amount regulated by 25 TAC Sections 289.11-289.126 (relating to Texas Regulations for Control of Radiation) and 30 TAC Chapter 336 (relating to Radiation Rules). If you mine, use, store, or process any radioactive material(s), list the radioactive materials and provide the results of at least one analysis of your effluent in picocuries per liter (pCi/L) for all radioactive parameters which may be present. (This requirement is not applicable to radioactive materials fixed in a device or instrument.) If this application is for a new facility, submit results from similar facilities, treatability studies, or literature sources.
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APPLICANCES TEAM

N/A

14. Does your facility use any cooling towers or boilers that discharge blowdown or other wastewater streams to the outfall(s)?

X  YES          NO      See Attachment R

If YES, the following information on all chemical additives including biocides must be submitted for cooling towers and boilers. If aquatic toxicity information is not available, additional effluent biomonitoring may be required. If the MSDS sheets do not contain the information specified below, it will be necessary to obtain the information from the manufacturer. Provide a summary of this information in addition to the submittal of the MSDS sheets. Please specify which outfalls are affected.

- a. Manufacturers Product Identification Number.
- b. Product Use. (e.g., biocide, fungicide, corrosion inhibitor, etc.)
- c. Chemical Composition including Chemical Abstracts System (CAS) number for each ingredient.
- d. Product toxicity data specific to fish and aquatic invertebrate organisms. Specify if data is for the whole product or for an active ingredient.
- e. Classify product as non-persistent, persistent, or bioaccumulative.
- f. Product or active ingredient half-life.
- g. If data in Item d., above is for the whole product, indicate the concentration of the whole product in the blowdown stream.  
If data in Item d., above is for the active ingredient, indicate the concentration of the active ingredient in the blowdown stream.
- h. Frequency of product use (e.g., 2 hr/day once every two weeks).

- i. The number of cooling towers on site is \_\_\_\_\_ (e.g., 2,3,4, etc.) and the total blowdown volume is:

Daily Average \_\_\_\_\_ gallons/day

Daily Maximum \_\_\_\_\_ gallons/day

- j. The number of boilers on site is  3  (e.g., 2,3,4, etc.) and the total blowdown volume is:

Daily Average  25,000  gallons/day

Daily Maximum  50,000  gallons/day

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15. Does your facility discharge once-through cooling water to the outfall(s)?

  x   YES        NO See Attachment R

If YES, the following information on all chemical additives including chlorine and bromine must be submitted. If aquatic toxicity information is not available, additional effluent biomonitoring may be required. If the MSDS sheets do not contain the information specified below, it will be necessary to obtain the information from the manufacturer. Provide a summary of this information in addition to the submittal of the MSDS sheets. Please specify which outfalls are affected.

- a. Manufacturers Product Identification Number.
- b. Product Use. (e.g., biocide, fungicide, corrosion inhibitor, etc.)
- c. Chemical Composition including Chemical Abstracts System (CAS) number for each ingredient.
- d. Product toxicity data specific to fish and aquatic invertebrate organisms. Specify if data is for the whole product or for an active ingredient.
- e. Classify product as non-persistent, persistent, or bioaccumulative.
- f. Product or active ingredient half-life.
- g. If data in Item d., above is for the whole product, indicate the concentration of the whole product in the once-through cooling water stream. If data in Item d., above is for the active ingredient, indicate the concentration of the active ingredient in the once-through cooling water stream.
- h. Frequency of product use (e.g., 2 hr/day once every two weeks).

16. IMPOUNDMENTS:

Do you use or plan to use any lagoons, ponds, or impoundments for treatment (T), disposal (D), containment (C), or evaporation (E) of your wastewater?

  x   YES        No If YES, complete items a-d for existing impoundments and items a-i for proposed new impoundments. If no, skip items a-i:

a. What are the dimensions of the impoundment(s)?

	POND 1	POND 2	POND 3	POND 4
Designation: (T) (C) (D) or (E)	<u>  T  </u>	<u>  T  </u>	<u>      </u>	<u>      </u>
Length	<u>  N/A  </u> ft	<u>  N/A  </u> ft	<u>      </u> ft	<u>      </u> ft
Width	<u>  N/A  </u> ft	<u>  N/A  </u> ft	<u>      </u> ft	<u>      </u> ft
Depth from water surface	<u>  N/A  </u> ft	<u>  N/A  </u> ft	<u>      </u> ft	<u>      </u> ft
Depth below natural ground level	<u>  N/A  </u> ft	<u>  N/A  </u> ft	<u>      </u> ft	<u>      </u> ft

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For impoundments with irregular shapes, submit surface area (instead of length and width), the average depth, and the maximum depth below natural ground level.

The surface area of Pond 1 is 20 acres.

The surface area of Pond 2 is 4.5 acres.

b. What is the capacity of the impoundment(s)?

	<u>POND 1</u>	<u>POND 2</u>	<u>POND 3</u>	<u>POND 4</u>
Gallons	65,170,200	14,665,500	_____	_____
Acre-Feet	200 @ 10ft	45 @ 10ft	_____	_____

c. If a discharge occurs from the impoundments, designate the Outfall associated with the impoundment.

	<u>POND 1</u>	<u>POND 2</u>	<u>POND 3</u>	<u>POND 4</u>
Outfall No.	001	001	_____	_____

d. Are the impoundments lined to comply with one of the following specifications? Please describe the pond liner.

N/A

- (1) Compacted Clay Liner: The soil liner shall contain at least 3 feet, along the sides and bottom, of clay-rich soil material compacted in lifts of no more than 9 inches, to 95% standard proctor density at the optimum moisture content to achieve a permeability equal to or less than  $1 \times 10^{-7}$  cm/sec.
- (2) In-Situ Clay Liner: The soil liner shall contain at least 3 feet, along the sides and bottom, of clay-rich soil material having more than 30% passing a 200-mesh sieve, liquid limit greater than or equal to 30%, and a plasticity index greater than or equal to 15, to achieve a permeability equal to or less than  $1 \times 10^{-7}$  cm/sec.
- (3) Plastic/Rubber Liner: The liner shall be either a plastic or rubber membrane liner at least 30 mils in thickness which completely covers the sides and the bottom of the pond and which is not subject to degradation due to reaction with wastewater with which it will come into contact. If this lining material is vulnerable to ozone or ultraviolet deterioration it should be covered with a protective layer of soil of at least 6 inches. A leak detection system is also required.

	<u>YES</u>	<u>NO</u>	<u>Liner Description</u>
Pond 1	_____	<u>X</u>	_____
Pond 2	_____	<u>X</u>	_____
Pond 3	_____	_____	_____
Pond 4	_____	_____	_____

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e. Submit any available data on the following:

N/A

- (1) Liner permeability, liner thickness, test results on liner compatibility with appropriate wastes, test results from clay borrow source, test results from liner construction, etc.
- (2) For impoundments constructed using in-situ soils as the liner: submit available soils boring information, the depth of impermeable clay soils, test results on soil permeability, procedures for compaction of top layer of in-situ soil, etc.
- (3) Analytical data on wastewater stored in each impoundment. (Additional testing is not being required, initially. However, information regarding levels of the contaminants that are listed in TABLES B-1 through B-9 may be useful in assessing the need for including pond lining requirements in the permit.)

f. Are there any leak detection systems or ground water monitoring wells in place or planned?

\_\_\_\_\_ YES   X   NO

If YES, describe in a separate attachment, the leak detection system for each pond and/or attach any available ground water monitoring well data. All ground water monitoring wells must be numbered and accurately located on a map submitted with the application.

Existing ground water monitoring data should be summarized and evaluated to determine if there is a statistically significant trend in concentrations and/or a statistically significant difference compared with background. The ground water monitoring summary should also include information on the monitoring wells such as the driller's logs, well completion data, ground water elevations, sampling procedures, etc.

g. Is the bottom of the pond above the seasonal high water table in the most shallow water bearing zone?

\_\_\_\_\_ YES   X   NO

h. On a USGS quadrangle map, accurately locate and identify water supply wells within a 1 mile radius of the impoundments. Submit copies of State Water Well Reports (driller's logs, completion data), and data on depths to ground water for water supply wells including a description of how the depths to ground water were obtained.

See Attachment S

i. Include any other pertinent site-specific data that is available pertaining to the ground water, soils, geology, etc. that has been or can be used to assess the potential for migration of wastes from the impoundments and the potential for contamination of ground water or surface water. Additional data may include logs and location plats of borings, soil analyses, water quality data, etc.

N/A

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INDUSTRIAL WASTEWATER PERMIT APPLICATIONS TEAM

## ATTACHMENTS

### TO THE INDUSTRIAL WASTEWATER PERMIT APPLICATION TECHNICAL REPORT

The following attachments may be required to be completed and submitted with the technical report. Please indicate, at the end of this section, if the attachment is completed and submitted with the technical report based on the following:

#### ATTACHMENT A: EPA EFFLUENT CATEGORICAL GUIDELINES

Attachment A is required to be submitted for applications which seek authorization to discharge wastewaters which are subject to USEPA Effluent Limitation Guidelines - Title 40 of the Code of Federal Regulations (40 CFR), Parts 400 - 471.

If you are requesting authorization to discharge a wastewater which is subject to an effluent limitation guideline then complete Attachment A as directed. If your business or industry is not subject to an effluent limitation guideline then skip Attachment A.

#### ATTACHMENT B: EFFLUENT CHARACTERIZATION AND ANALYTICAL TESTING

Attachment B is required to be submitted for all applications.

#### ATTACHMENT C: LAND DISPOSAL OF EFFLUENT

Attachment C is required to be submitted for applications which seek authorization for the use of land disposal (irrigation, evaporation, etc.) as a method of effluent disposal.

If this application seeks a new authorization or a renewal (with or without an amendment request) of an existing authorization to use land disposal for effluent disposal then complete Attachment C as directed. If this application does not request any authorization for land disposal of effluent then skip Attachment C.

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**ATTACHMENT D: TOXICITY TESTING**

Attachment D is required to be submitted for applications which contain 1) process wastewater outfalls and/or any other continuous discharge outfalls from an industrial facility subject to EPA Categorical Standards (40 CFR 400-471), 2) process wastewater outfalls and/or any other continuous discharge outfalls from an industrial facility classified as an EPA Major, or 3) treated domestic wastewater from outfalls at flows of 1 MGD or greater. External outfalls conducting routine toxicity testing as a requirement of the currently issued wastewater discharge permit do not need to be re-tested. Internal outfalls also do not need to be tested.

If this application requires toxicity testing, under the conditions stated above, then complete Attachment D as directed. If this application does not require toxicity testing, under the conditions stated above, then skip Attachment D.

**ATTACHMENT E: RECEIVING WATERS**

Attachment E is required to be submitted for applications for a permit to discharge wastewater into waters in the state.

Attachment E is not required to be submitted for applications for a permit which seeks authorization for the use of land disposal (irrigation, evaporation, etc.) as the only method of effluent disposal with no discharge of wastewater into waters in the state.

**ATTACHMENT F: SEWAGE SLUDGE MANAGEMENT AND DISPOSAL**

Attachment F is required to be submitted for some applications to obtain information concerning the disposal of domestic sewage sludge and/or domestic septage. Please refer to Item No. 15 on Page No.8 of the technical report to determine if Attachment F is required for your application.

**ATTACHMENT G: INDUSTRIAL WASTE CONTRIBUTION**

Attachment G is required to be submitted for applications from those facilities which have or are required to have an approved pretreatment program under the TPDES program.

If this facility does have or is required to have an approved pretreatment program under the TPDES program, then complete Attachment G as directed. If this facility does not have and is not required to have an approved pretreatment program under the TPDES program, then skip Attachment G.

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**ATTACHMENT T**

**SCOPE OF PROPOSED PERMIT CHANGES**

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## **SCOPE OF PROPOSED PERMIT CHANGES**

### **Addition of an Ash Storage Unit**

On behalf of Welsh Power Plant, Central and South West Services, Inc. (CSWS) requests inclusion of an additional Ash Storage Unit into the facility design specifications. The Ash Storage units have been located and drawn to size on the original topographic map included in the amendment application as "Attachment M". Any water that is de-watered from the proposed Ash Storage unit will be routed to the ash pond system and discharged through Outfall 001, as appropriate. All of the solid waste regulatory requirements have already been fulfilled for this new unit (prior to initiation of construction), including the required deed recording activities. The types of wastes entering Outfall 001 through the ash pond system from the new ash storage unit will remain the same as they are in existing operations at the facility.

### **Inclusion of Cooling Towers in Design Specifications for the Facility**

CSWS also requests the inclusion of cooling towers located along the discharge canal for Outfall 003 to be specifically identified and included in the design specifications for Welsh Power Plant. As you may recall, Outfall 003 was an internal outfall (Outfall 103) in all of the previous permits. CSWS believes that the nature of the manner in which the outfall was operated and regulated in the past may have gotten lost in the re-designation of the outfall as an external outfall during processing of the new TPDES permit. The water flow diagram (Attachment J) has been revised to include the cooling towers, as appropriate.

During the hot summer months, Welsh has historically used cooling towers to enhance cooling of once-through cooling water once it has been passed through the condensers. These cooling towers are located approximately one-half mile from the power plant, along the canal utilized by the facility to route the waste cooling water to Outfall 003.

After the cooling water is passed through the condensers and enters the canal, the cooling towers can be operated as needed in the hot summer months to enhance cooling of the water before it is re-introduced to Welsh Reservoir. The cooling towers are operated only as a once-through pass system, and are not cycled so as to eliminate the potential to concentrate any potential pollutants. This system is operated solely for the additional temperature benefit it provides to Welsh Reservoir.

The portion of water diverted into the cooling towers can be monitored (as it has in the past via combined samples) prior to being pumped into the towers, and consists of the exact same water that is discharged through Outfall 003. We respectfully request to continue monitoring the cooling water discharge as we have for the previous permits. We believe that the proposed continuance of monitoring is the most consistent method of monitoring given existing operations, and is representative of all of the cooling water that is discharged to the reservoir.

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## **Reduced Monitoring Frequency for Residual Chlorine at Outfall 002**

The new TPDES Permit for Welsh Power Plant contains a requirement for Outfall 002 (under footnote 3. on page 2b) that the "effluent shall contain a chlorine residual of at least 1.0 mg/l and a maximum of at least 4.0 mg/l after a retention time of at least 20 minutes (based on peak flow), and shall be monitored five times per week, by grab sample". CSWS hereby requests to have the monitoring frequency for residual chlorine reduced from five times per week to once per week for Outfall 002. This request is proposed in order to provide consistency with the other associated parameter monitoring frequencies for the same outfall (once per week for BOD and Total Suspended Solids).

We appreciate your consideration with regard to the aforementioned requests.

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**ATTACHMENT H: HAZARDOUS SUBSTANCES**

Attachment H is required to be submitted for all applications.

**ATTACHMENT I: POLLUTION PREVENTION**

Attachment I is required to be submitted for all applications.

**ATTACHMENT J: SCHEMATIC OF WASTEWATER FLOWS EXAMPLE**

Attachment J is an example of the type of wastewater flow schematic which is expected to be submitted in response to Item No. 3.f. on Page No. 3 of the technical report. The example provided in the application as Attachment J does not need to be submitted with the application. An actual schematic of your facility's wastewater flows must be submitted with application as Attachment J.

**ATTACHMENT K: STORM WATER PERMITTING**

Attachment K is intended to provide information concerning which conditions require individual TPDES permits for storm water discharges. Attachment K does not need to be submitted with the application.

Please indicate which attachments are completed and submitted with the technical report based on the above information. Attachments that are not applicable do not need to be submitted with the technical report.

ATTACHMENT	COMPLETED AND SUBMITTED WITH THE TECHNICAL REPORT:	
A: EPA EFFLUENT CATEGORICAL GUIDELINES	YES <u>  X  </u>	NO <u>      </u>
B: EFFLUENT CHARACTERIZATION AND ANALYTICAL TESTING	YES <u>  X  </u>	NO <u>      </u>
C: LAND DISPOSAL OF EFFLUENT	YES <u>      </u>	NO <u>  X  </u>
D: TOXICITY TESTING	YES <u>  X  </u>	NO <u>      </u>
E: RECEIVING WATERS	YES <u>  X  </u>	NO <u>      </u>
F: SEWAGE SLUDGE MANAGEMENT AND DISPOSAL	YES <u>      </u>	NO <u>  X  </u>
G: INDUSTRIAL WASTE CONTRIBUTION	YES <u>      </u>	NO <u>  X  </u>
H: HAZARDOUS SUBSTANCES	YES <u>  X  </u>	NO <u>      </u>
I: POLLUTION PREVENTION	YES <u>  X  </u>	NO <u>      </u>

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# ATTACHMENT A

## EPA EFFLUENT CATEGORICAL GUIDELINES

1. Table A-1 is a list of effluent limitation guidelines as found in Title 40 Code of Federal Regulations, Parts 400 - 471. Check the category(s) that applies to wastewater generated at your facility.

TABLE A-1

INDUSTRY	40 CFR PART
_____ Dairy Products Processing	405
_____ Grain Mills	406
_____ Canned and Preserved Fruits and Vegetables	407
_____ Canned and Preserved Seafood Processing	408
_____ Sugar Processing	409
_____ Textile Mills	410
_____ Cement Manufacturing	411
_____ Feedlots	412
_____ Electroplating	413
_____ Organic Chemicals, Plastics, and Synthetic Fibers	414
_____ Inorganic Chemicals	415
_____ Soap and Detergent Manufacturing	417
_____ Fertilizer Manufacturing	418
_____ Petroleum Refining	419
_____ Iron and Steel Manufacturing	420
_____ Nonferrous Metals Manufacturing	421
_____ Phosphate Manufacturing	422
<u>XX</u> _____ Steam Electric Power Generating	423
_____ Ferroalloy Manufacturing	424
_____ Leather Tanning and Finishing	425
_____ Glass Manufacturing	426
_____ Asbestos Manufacturing	427
_____ Rubber Manufacturing	428
_____ Timber Products Processing	429
_____ Pulp, Paper, and Paperboard	430
_____ Builders' Paper and Board Mills	431
_____ Meat Products	432
_____ Metal Finishing	433
_____ Coal Mining	434
_____ Oil and Gas Extraction	435
_____ Mineral Mining and Processing	436
_____ Pharmaceutical Manufacturing	439
_____ Ore Mining and Dressing	440
_____ Paving and Roofing Materials	443
_____ Paint Formulating	446
_____ Ink Formulating	447
_____ Gum and Wood Chemicals Manufacturing	454
_____ Pesticide Chemicals	455
_____ Explosives Manufacturing	457
_____ Carbon Black Manufacturing	458
_____ Photographic	459
_____ Hospital	460
_____ Battery Manufacturing	461
_____ Plastics Molding and Forming	463
_____ Metal Molding and Casting	464
_____ Coil Coating	465
_____ Porcelain Enameling	466
_____ Aluminum Forming	467
_____ Copper Forming	468
_____ Electrical and Electronic Components	469
_____ Nonferrous Metals Forming and Metal Powders	471
_____ N/A	

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2. Industrial wastewater must be treated to levels that meet the requirements of applicable USEPA Effluent Limitation Guidelines - Title 40 of the Code of Federal Regulations (40 CFR), Parts 400 - 471. Therefore, the permit application must contain all information necessary to calculate permit limits based on these guidelines.

If limitations in the above referenced guidelines that apply to your facility are expressed in terms of production (e.g. lbs of pollutant/1000 lbs of production), provide a quantity representative of the actual level of production over the last three years, if available, for each category or subcategory. For refineries (40 CFR Part 419), please include the size of each process unit, the throughput of the refinery, and the throughput of each unit.

SUBCATEGORY	ACTUAL QUANTITY/DAY	DESIGN QUANTITY/DAY	UNITS
N/A			

For facilities subject to effluent limitation guidelines for organic chemicals, plastics and synthetic fibers manufacturing, provide the fraction of total plant production that falls into each subpart (for instance, 45% commodity chemicals, 35% bulk chemicals, and 30% specialty chemicals.) Also identify processes in Appendices A and B to 40 CFR Part 414 that are utilized and provide the flow of metal bearing waste streams and cyanide bearing waste streams, if any. See 40 CFR 414.

SUBCATEGORY	% of Total Production	APPENDIX A AND B	
		Metal	Process
N/A			

For refineries (40 CFR Part 419), please identify the specific subcategory (i.e., topping, cracking, petrochemical, lube, and/or integrated) your facility is classified as and include a justification for the classification.

N/A

\_\_\_\_\_

\_\_\_\_\_

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3. Provide a breakdown of process wastewater flow(s) and non-process wastewater flow(s) as defined for the industry in the appropriate guideline category. This quantitative listing of all wastewater sources is required in addition to a schematic flow diagram.

See Item #4 in Next paragraph

4. Please list all the processes which are both subject to USEPA Effluent Limitation Guidelines and generate a wastewater which is discharged via this permit. Please provide all the requested information for each process listed.

PROCESS	EPA GUIDELINE (PART & SUBPART)	DATE PROCESS BEGAN OPERATION (*1)
<u>Once through cooling water</u>	<u>40 CFR Part 423</u>	<u>March 31, 1977</u>
<u>Low volume wastewater/Ash</u>	<u>40 CFR Part 423</u>	<u>March 31, 1977</u>
<u>Transport water / cool pile runoff (combined)</u>		
<u>Chemical Metal Cleaning Waste</u>	<u>40CFR Part 423</u>	<u>March 31, 1977</u>
<u>Treated Sanitary Sewage Effluent</u>	<u>40 CFR Parts 122,125,136</u>	<u>March 31, 1977</u>

(\*1) May also include the date construction for the process commenced.

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## ATTACHMENT B

### EFFLUENT CHARACTERIZATION AND ANALYTICAL TESTING

#### 1. GENERAL GUIDANCE FOR ATTACHMENT B:

Attachment B contains a series of analytical tables which may need to be completed in order for the application to be technically complete. Following is a listing of conditions which determine when a particular table is required to be completed and when it is not required. Please note that the term "complete table required" means that all pollutants listed on that table are required to be tested if the table is required and the term "partial table required" means that only certain pollutants from the table (as determined by the instructions) will be required to be tested if the table is required.

TABLE B-1: Complete table required for all external outfalls which do not discharge solely storm water.

Complete table required for all final effluent monitoring points for effluent disposed of via land application or evaporation.

Not required for internal outfalls or storm water only discharges.

TABLE B-2: Complete table required for all external outfalls which discharge process wastewater.

Partial table (only those pollutants that are used at the facility as a feedstock, intermediate, product, byproduct, coproduct, maintenance chemical or that could in any way contribute to contamination in the wastewater streams) required for each continuously discharging nonprocess external outfall (including noncontact cooling water). Please respond with a "N/A" for each individual pollutant which is not analyzed under this condition.

Not required for internal outfalls or storm water only discharges.

TABLE B-3: Partial table (only those pollutants which are required by the conditions specified) required for each external outfall.

Not required for internal outfalls or storm water only discharges.

TABLE B-4: Complete table required for all external outfalls which discharge process wastewater and other wastewaters, which may contain pesticides or herbicides, from a facility which manufactures or formulates pesticides or herbicides.

Not required for internal outfalls or storm water only discharges.

TABLE B-5: Complete table required for all external outfalls.

Not required for internal outfalls or storm water only discharges.

TABLE B-7: Partial table (only those fractions as specified in Table B-6) required for all process wastewater outfalls.

TABLE B-8: Complete table required for each external outfall under the conditions specified.

Not required for internal outfalls or storm water only discharges.

TABLE B-9: Partial table (only those pollutants which are required by the conditions specified) required for each external outfall.

Not required for internal outfalls or storm water only discharges.

Table B-10: Complete table required for all external outfalls which discharge solely storm water runoff associated with "industrial activity" and are not regulated by an NPDES/TPDES multi-sector or construction general storm water permit. Please refer to Attachment K for specific guidance.

TABLE B-11: Partial table (only those pollutants which are required by the conditions specified) required for all external outfalls which discharge solely storm water runoff associated with "industrial activity" and are not regulated by an NPDES/TPDES multi-sector or construction general storm water permit. Please refer to Attachment K for specific guidance.

2. GENERAL REQUIREMENTS FOR ATTACHMENT B:

All information submitted with this attachment shall comply with the following:

- a. For pollutants currently regulated in your permit, report the average and maximum values from the Monthly Effluent Reports for the previous 24 months for all pollutants in the existing permit regardless of the required monitoring frequency. (For pH, report the minimum and maximum values.)
- b. Tables B-1, B-2, and B-3: For pollutants not currently regulated in your permit, average and maximum concentrations must be calculated from at least four (4) separate analytical results obtained from four (4) grab or composite samples collected at a frequency of 1/week for a period of 4 weeks from the wastewater stream unless otherwise specified in the application or approved by the TNRCC. Prior approval to submit less than four (4) samples should be obtained from the TNRCC prior to application submittal.

Tables B-4, B-5, B-7, B-8, B-9, B-10, and B-11: For pollutants not currently regulated in your permit, average and maximum concentrations may be calculated from at least one (1) analytical result obtained from a grab or composite sample.

The quantitative data may be data collected over the past 365 days.

- c. If this application is for a new discharge, results from similar facilities, treatability studies, design information, or literature sources may be submitted when real effluent analytical data is not available. The basis of the "results" submitted should be explained.
- d. For facilities which have an intermittent discharge from final retention impoundment(s) when the impoundments reach holding capacity and a discharge is not foreseen in the near future; samples of the effluent currently stored in the impoundment may be used to satisfy the analytical requirements.
- e. Test Methods utilized should be sensitive enough to detect the constituents at the Minimum Analytical Level (MAL) specified. For analytical results that are non-detect, please report the analytical values as less than the detection level (example: a result that is non-detect with a detection level of 50 ug/l should be reported as "< 50 ug/l").
- f. Grab samples must be used for pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform, and enterococci. 24-hour composite samples must be used for all other pollutants.
- g. If any of the analysis reported in this application are performed by a contract laboratory or a consulting firm, please provide the name, address, and telephone number for each laboratory and/or firm. Also specify which pollutants were analyzed by which laboratory/firm.

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3. Outfalls that contain any wastewater other than storm water (e.g., process wastewater, utility wastewater, domestic wastewater, groundwater, etc.) must complete TABLE B-1. Facilities that utilize land application or evaporation for wastewater treatment/disposal must also provide these analytical results.

TABLE B-1

OUTFALL 001 Sample Type: GRAB \_\_\_\_\_ COMPOSITE x

POLLUTANT	INFLUENT CONCENTRATION (mg/l)		NUMBER OF SAMPLES	EFFLUENT CONCENTRATION (mg/l)		NUMBER OF SAMPLES
	AVG.	MAX.		AVG.	MAX.	
BOD (5-day)	_____	_____	_____	_____	3	1
CBOD (5-day)	_____	_____	_____	_____	< 2	1
Chemical Oxygen Demand	_____	_____	_____	_____	15	1
Total Organic Carbon	_____	_____	_____	_____	6	1
Ammonia Nitrogen	_____	_____	_____	_____	0.5	1
Total Suspended Solids	_____	_____	_____	_____	21	1
Nitrate Nitrogen	_____	_____	_____	_____	0.2	1
Total Organic Nitrogen	_____	_____	_____	_____	0.5	1
Total Phosphorus	_____	_____	_____	_____	0.23	1
Oil and Grease	_____	_____	_____	< 5	< 5	4
Total Residual Chlorine	_____	_____	_____	_____	---	---
Total Dissolved Solids	_____	_____	_____	_____	437	1
Sulfate	_____	_____	_____	_____	160	1
Chloride	_____	_____	_____	_____	26	1
Fluoride	_____	_____	_____	_____	0.51	1
Fecal Coliform	_____	_____	_____	60	120	4
Temperature (°F)	_____	_____	_____	_____	---	---
pH (Standard Units; min/max)	_____	_____	_____	7.0 (min)	8.4 (MAX)	104

POLLUTANT	EFFLUENT CONCENTRATION (µg/l)		NUMBER OF SAMPLES	MAL µg/l
	AVG.	MAX.		
Total Aluminum	_____	2,553	1	30
Total Antimony	_____	< 30	1	30
Total Arsenic	_____	< 10	1	10
Total Barium	_____	601	1	10
Total Beryllium	_____	< 5	1	5
Total Cadmium	_____	< 1	1	1
Total Chromium	7.7	8	2	10
Trivalent Chromium	_____	< 10	1	--
Hexavalent Chromium	_____	< 10	1	10
Total Copper	_____	< 10	1	10
Cyanide, (Total, Amenable to Chlorination or Weak-Acid Dissociable)	< 20	< 20	4	20
Total Lead	_____	< 5	1	5
Total Mercury	_____	< 0.2	1	0.2
Total Nickel	_____	< 10	1	10
Total Phenols	_____	< 10	1	20
Total Selenium	_____	5.53	1	10
Total Silver	_____	< 2	1	2
Total Thallium	_____	< 10	1	10
Total Zinc	_____	6.7	1	5

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4. TABLE B-2 contains a list of organic compounds included in the Texas Surface Water Quality Standards at 30 TAC 307.6. TABLE B-2 must be completed with the results of an analysis of all pollutants for each outfall that contains process wastewater. In addition, an analysis for each continuously discharging nonprocess outfall (including noncontact cooling water) must be provided for only those pollutants in TABLE B-2 that are used at the facility as a feedstock, intermediate, product, byproduct, coproduct, maintenance chemical or that could in any way contribute to contamination in the wastewater streams.

TABLE B-2

OUTFALL 001

POLLUTANT	CONC. µg/l (*1)		NUMBER OF SAMPLES	MAL (µg/l)
	AVG.	MAX.		
Benzene		< 10	1	10
Benzidine		< 50	1	50
Benzo(a)anthracene		< 10	1	10
Benzo(a)pyrene		< 10	1	10
Bis(chloromethyl)ether (*2)		< 10	1	--
Carbon Tetrachloride		< 10	1	10
Chlorobenzene		< 10	1	10
Chloroform		< 10	1	10
Chrysene		< 10	1	10
Cresols		ND	1	(*3)
Dibromochloromethane		< 10	1	10
1,2-Dibromoethane		< 2	1	2
1,4-Dichlorobenzene		< 10	1	10
1,2-Dichloroethane		< 10	1	10
1,1-Dichloroethylene		< 10	1	10
Fluoride		510	1	500
Hexachlorobenzene		< 10	1	10
Hexachlorobutadiene		< 10	1	10
Hexachloroethane		< 10	1	20
Methyl Ethyl Ketone		< 50	1	50
Nitrobenzene		< 10	1	10
n-Nitrosodiethylamine		< 20	1	20
n-Nitroso-di-n-Butylamine		< 20	1	20
PCB's, Total (*4)		< 10	1	1
Pentachlorobenzene		< 20	1	20
Pentachlorophenol		< 50	1	50
Phenanthrene		< 10	1	10
Pyridine		< 20	1	20
1,2,4,5-Tetrachlorobenzene		< 20	1	20
Tetrachloroethylene		< 10	1	10
Trichloroethylene		< 10	1	10
1,1,1-Trichloroethane		< 10	1	10
2,4,5-Trichlorophenol		< 50	1	50
TTHM (Total Trihalomethanes)		< 10	1	10
Vinyl Chloride		< 10	1	10

(\*1) Indicate units if different from µg/l.

(\*2) Hydrolyzes in water. Will not require applicant to analyze at this time.

(\*3) MAL's for Cresols: p-Chloro-m-Cresol 10 µg/l; 4,6-Dinitro-o-Cresol 50 µg/l; p-Cresol 10 µg/l

(\*4) Total of PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, PCB-1016.

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5. TABLE B-3 contains testing requirements for the compound "Tributyltin" and for the indicator bacteria "enterococci." Not all applicants are required to test for tributyltin or enterococci. Testing is required only under the following conditions:

A. TRIBUTYLTIN

Testing will be required for 1) industrial/commercial facilities which directly dispose of wastewater from the types of operations listed below OR 2) domestic facilities which receive wastewater from the types of industrial/commercial operations listed below. Please check all that apply.

- ☐ 1) Manufacturers and formulators of tributyltin or related compounds, including, but not limited to SIC code 2879. Testing required.
- ☐ 2) Painting of ships, boats and marine structures, including, but not limited to SIC code 1721. Testing required.
- ☐ 3) Ship and boat building and repairing, including, but not limited to SIC codes 3731, 3732 and 3441. Testing required.
- ☐ 4) Ship and boat cleaning, salvage, wrecking and scaling, including, but not limited to SIC codes 4499 and 7699. Testing required.
- ☐ 5) Operation and maintenance of marine cargo handling facilities and marinas, including, but not limited to SIC codes 4491 and 4493. Testing required.
- ☐ 6) Facilities engaged in wood preserving, including, but not limited to, SIC code 2491. Testing required.
- ☐ 7) Any other industrial/commercial facility for which tributyltin is known to be present, or for which there is any reason to believe that tributyltin may be present in the effluent. Testing required.
- ☒ 8) None of the above. No testing required.

B. ENTEROCOCCI

Testing will be required for all dischargers directly into the Houston Ship Channel (classified stream segment nos. 1006 or 1007). Please check all that apply.

- ☐ 1) Discharge is directly to the Houston Ship Channel (classified stream segment number 1006 or 1007). Testing required.
- ☒ 2) Discharge is not directly to the Houston Ship Channel (classified stream segment number 1006 or 1007). No testing required.

TABLE B-3

OUTFALL N/A

POLLUTANT	Concentration		Units	NUMBER OF SAMPLES	MAL ( $\mu\text{g/l}$ )
	AVG.	MAX.			
Tributyltin					0.010
Enterococci					N/A

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6. TABLE B-4 contains a list of pesticide compounds included in the Texas Surface Water Quality Standards at 30 TAC 307.6. TABLE B-4 must be completed if the facility manufactures or formulates pesticides or herbicides. Complete TABLE B-4 with the results of an analyses for each outfall that contains process wastewater or may contain pesticides or herbicides. Report an average and maximum value if more than one analytical result is available.

XX N/A: This facility does not manufacture or formulate pesticides or herbicides.

TABLE B-4

OUTFALL _____ POLLUTANT	CONCENTRATION (µg/l)*		NUMBER OF SAMPLES	MAL (µg/l)
	AVG.	MAX.		
Aldrin				0.05
Alpha-hexachlorocyclohexane				0.05
Beta-hexachlorocyclohexane				0.05
Carbaryl				5
Chlordane				0.15
Chlorpyrifos				0.05
2,4-D				10
Danitol				----
4,4'-DDD				0.1
4,4'-DDE				0.1
4,4'-DDT				0.1
Demeton				0.2
Diazinon				0.5
Dicofol				20
Dieldrin				0.1
Diuron				----
Endosulfan I (alpha)				0.1
Endosulfan II (beta)				0.1
Endosulfan Sulfate				0.1
Endrin				0.1
Gamma - Hexachlorocyclohexane (Lindane)				0.05
Guthion				0.10
Heptachlor				0.05
Heptachlor Epoxide				1.0
Hexachlorophene				10
Malathion				0.10
Methoxychlor				2.0
Mirex				0.2
Parathion				0.1
Toxaphene				5
2,4,5-TP (Silvex)				2

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7. Review the following TABLE B-5 and mark the appropriate column with an "X" if you believe a specific constituent to be present or absent in your discharge. Base your determination on your knowledge of raw materials, maintenance chemicals, intermediates, and products handled at your facility and/or previous analyses of your wastewater. You must provide the results of at least one analysis for each constituent believed present. Report an average and maximum value if more than one analytical result is available.

TABLE B-5

OUTFALL 001

POLLUTANT	BELIEVED	BELIEVED	CONCENTRATION		NUMBER OF
	PRESENT	ABSENT	(mg/l) *		
			AVG.	MAX	SAMPLES
Bromide	—	X	—	< 6	1
Color (PCU)	—	X	—	< 5	1
Nitrate-Nitrite (as N)	X	—	—	0.2	1
Sulfide (as S)	—	X	—	< 1	1
Sulfite (as SO <sub>3</sub> )	—	X	—	< 2	1
Surfactants	—	X	—	< 0.1	1
Total Antimony	—	X	—	< 0.005	1
Total Beryllium	—	X	—	< 0.005	1
Total Boron	X	—	—	0.662	1
Total Cobalt	—	X	—	< 0.02	1
Total Iron	X	—	—	0.582	1
Total Magnesium	X	—	—	7.627	1
Total Molybdenum	—	X	—	< 0.03	1
Total Manganese	—	X	—	< 0.02	1
Total Thallium	—	X	—	< 0.01	1
Total Tin	—	X	—	< 0.1	1
Total Titanium	X	—	—	0.128	1

\* Indicate units if different from mg/l.

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8. Table B-6 is a list of primary industrial categories with a breakdown of Gas Chromatography/Mass Spectrometry (GC/MS) testing requirements for Priority Pollutants. Categories are defined in 40 CFR Parts 400 - 471. Check any category(s) that apply to your facility and provide the indicated analysis for Priority Pollutants listed in Table B-6.

TABLE B-6

N/A	GC/MS Testing Required			
	Volatile	Acid	Base/Neutral	Pesticides
<input type="checkbox"/> Adhesives and Sealants	Yes	Yes	Yes	No
<input type="checkbox"/> Aluminum Forming	Yes	Yes	Yes	No
<input type="checkbox"/> Auto and Other Laundries	Yes	Yes	Yes	Yes
<input type="checkbox"/> Battery Manufacturing	Yes	No	Yes	No
<input type="checkbox"/> Coal Mining	No	No	No	No
<input type="checkbox"/> Coil Coating	Yes	Yes	Yes	No
<input type="checkbox"/> Copper Forming	Yes	Yes	Yes	No
<input type="checkbox"/> Electric and Electronic Components	Yes	Yes	Yes	Yes
<input type="checkbox"/> Electroplating	Yes	Yes	Yes	No
<input type="checkbox"/> Explosives Manufacturing	No	Yes	Yes	No
<input type="checkbox"/> Foundries	Yes	Yes	Yes	No
<input type="checkbox"/> Gum and Wood Chemicals				
<input type="checkbox"/> Subparts A,B,C,E	Yes	Yes	No	No
<input type="checkbox"/> Subparts D,F	Yes	Yes	Yes	No
<input type="checkbox"/> Inorganic Chemicals	Yes	Yes	Yes	No
<input type="checkbox"/> Iron and Steel Mfg.	Yes	Yes	Yes	No
<input type="checkbox"/> Leather Tanning/Finishing	Yes	Yes	Yes	No
<input type="checkbox"/> Mechanical Products Mfg.	Yes	Yes	Yes	No
<input type="checkbox"/> Nonferrous Metals Mfg.	Yes	Yes	Yes	Yes
<input type="checkbox"/> Ore Mining (Subpart B)	No	Yes	No	No
<input type="checkbox"/> Organic Chemicals, Plastics and Synthetic Fibers	Yes	Yes	Yes	Yes
<input type="checkbox"/> Paint and Ink Formulation	Yes	Yes	Yes	No
<input type="checkbox"/> Pesticides	Yes	Yes	Yes	Yes
<input type="checkbox"/> Petroleum Refining	Yes	Yes	Yes	No
<input type="checkbox"/> Pharmaceutical Preparations	Yes	Yes	Yes	No
<input type="checkbox"/> Photographic Equipment and Supplies	Yes	Yes	Yes	No
<input type="checkbox"/> Plastic Processing	Yes	No	No	No
<input type="checkbox"/> Porcelain Enameling	No	No	No	No
<input type="checkbox"/> Printing and Publishing	Yes	Yes	Yes	Yes
<input type="checkbox"/> Pulp and Paperboard Mills				
<input type="checkbox"/> Subparts A,B,C,D,R	*	Yes	*	Yes
<input type="checkbox"/> Subparts F,G,H,I, K,L,M,N,O,P,	Yes	Yes	*	Yes
<input type="checkbox"/> Subparts E,Q,S,T	Yes	Yes	*	Yes
<input type="checkbox"/> Subparts J,U	Yes	Yes	Yes	*
<input type="checkbox"/> Rubber Processing	Yes	Yes	Yes	No
<input type="checkbox"/> Soap and Detergent Mfg.	Yes	Yes	Yes	No
<input checked="" type="checkbox"/> Steam Electric Power Plants	Yes	Yes	No	No
<input type="checkbox"/> Textile Mills (Not Subpart C)	Yes	Yes	Yes	No
<input type="checkbox"/> Timber Products Processing	Yes	Yes	Yes	Yes

\* Test if "believed present"

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9. Table B-7 contains a list of priority pollutants. If you are a primary industry as shown in Table B-6 and process wastewater is discharged, you must analyze for those GC/MS fractions as shown in Table B-7. If you are not a primary industry and if you believe that a specific constituent (except for: acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4,6 dinitrophenol) is present in an amount greater than 10 ppb you must provide the results of at least one analysis. If you believe that acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4,6 dinitrophenol is present in an amount greater than 100 ppb you must provide results for these chemicals. Base your determination on your knowledge of raw materials, maintenance chemicals, intermediates, and products handled at your facility or analysis of your wastewater. Report an average and a maximum value if more than one analytical result is available.

TABLE B-7

OUTFALL 001

POLLUTANT	CONCENTRATION ( $\mu\text{g/l}$ ) *		NUMBER OF SAMPLES	MAL ( $\mu\text{g/l}$ )
	AVG.	MAX.		
VOLATILE COMPOUNDS				
Acrolein	_____	< 50	1	50
Acrylonitrile	_____	< 50	1	50
Benzene	_____	< 10	1	10
Bromoform	_____	< 10	1	10
Carbon Tetrachloride	_____	< 10	1	10
Chlorobenzene	_____	< 10	1	10
Chlorodibromomethane	_____	< 10	1	10
Chloroethane	_____	< 10	1	10
2-Chloroethylvinyl Ether	_____	< 50	1	50
Chloroform	_____	< 10	1	10
Dichlorobromomethane	_____	< 10	1	10
1,1-Dichloroethane	_____	< 10	1	10
1,2-Dichloroethane	_____	< 10	1	10
1,1-Dichloroethylene	_____	< 10	1	10
1,2-Dichloropropane	_____	< 10	1	10
1,3-Dichloropropylene	_____	< 10	1	10
Ethylbenzene	_____	< 10	1	10
Methyl Bromide	_____	< 20	1	20
Methyl Chloride	_____	< 20	1	20
Methylene Chloride	_____	< 20	1	20
1,1,2,2-Tetrachloroethane	_____	< 10	1	10
Tetrachloroethylene	_____	< 10	1	10
Toluene	_____	< 10	1	10
1,2-Trans-Dichloroethylene	_____	< 10	1	10
1,1,1-Trichloroethane	_____	< 10	1	10
1,1,2-Trichloroethane	_____	< 10	1	10
Trichloroethylene	_____	< 10	1	10
Vinyl Chloride	_____	< 10	1	10

\* Indicate units if different from  $\mu\text{g/l}$

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TABLE B-7 (con't)

OUTFALL 001

POLLUTANT	CONCENTRATION (µg/l) *		NUMBER OF SAMPLES	MAL (µg/l)
	AVG.	MAX.		
ACID COMPOUNDS				
2-Chlorophenol	_____	< 10	1	10
2,4-Dichlorophenol	_____	< 10	1	10
2,4-Dimethylphenol	_____	< 10	1	10
4,6-Dinitro-o-Cresol	_____	< 50	1	50
2,4-Dinitrophenol	_____	< 50	1	50
2-Nitrophenol	_____	< 40	1	20
4-Nitrophenol	_____	< 50	1	50
P-Chloro-m-Cresol	_____	< 20	1	10
Pentachlorophenol	_____	< 50	1	50
Phenol	_____	< 10	1	10
2,4,6-Trichlorophenol	_____	< 10	1	10
BASE/NEUTRAL COMPOUNDS				
Acenaphthene	_____	< 10	1	10
Acenaphthylene	_____	< 10	1	10
Anthracene	_____	< 10	1	10
Benzidine	_____	< 50	1	50
Benzo(a) Anthracene	_____	< 10	1	10
Benzo(a) Pyrene	_____	< 10	1	10
3,4-Benzofluoranthene	_____	< 10	1	10
Benzo(ghi) Perylene	_____	< 20	1	20
Benzo(k) Fluoranthene	_____	< 10	1	10
Bis(2-Chloroethoxy) Methane	_____	< 10	1	10
Bis(2-Chloroethyl) Ether	_____	< 10	1	10
Bis(2-Chloroisopropyl) Ether	_____	< 10	1	10
Bis(2-Ethylhexyl) Phthalate	_____	< 10	1	10
4-Bromophenyl Phenyl Ether	_____	< 10	1	10
Butylbenzyl Phthalate	_____	< 10	1	10
2-Chloronaphthalene	_____	< 10	1	10
4-Chlorophenyl Phenyl Ether	_____	< 10	1	10
Chrysene	_____	< 10	1	10
Dibenzo(a,h) Anthracene	_____	< 20	1	20
1,2-Dichlorobenzene	_____	< 10	1	10
1,3-Dichlorobenzene	_____	< 10	1	10
1,4-Dichlorobenzene	_____	< 10	1	10
3,3-Dichlorobenzidine	_____	< 50	1	50
Diethyl Phthalate	_____	< 10	1	10
Dimethyl Phthalate	_____	< 10	1	10
Di-n-Butyl Phthalate	_____	< 10	1	10
2,4-Dinitrotoluene	_____	< 10	1	10
2,6-Dinitrotoluene	_____	< 10	1	10
Di-n-Octyl Phthalate	_____	< 10	1	10
1,2-Diphenyl Hydrazine (as Azobenzene)	_____	< 20	1	20

\* Indicate units if different from µg/l

TABLE B-7 (con't)

## OUTFALL 001

POLLUTANT	CONCENTRATION (µg/l) *		NUMBER OF SAMPLES	MAL (µg/l)
	AVG.	MAX.		
BASE/NEUTRAL COMPOUNDS (con't)				
Fluoranthene		<10	1	10
Fluorene		<10	1	10
Hexachlorobenzene		<10	1	10
Hexachlorobutadiene		<10	1	10
Hexachlorocyclopentadiene		<10	1	10
Hexachloroethane		<20	1	20
Indeno(1,2,3-cd)pyrene		<20	1	20
Isophorone		<10	1	10
Naphthalene		<10	1	10
Nitrobenzene		<10	1	10
N-Nitrosodimethylamine		<20	1	20
N-Nitrosodi-n-Propylamine		<20	1	20
N-Nitrosodiphenylamine		<20	1	20
Phenanthrene		<10	1	10
Pyrene		<10	1	10
1,2,4-Trichlorobenzene		<10	1	10
PESTICIDES	N/A			
Aldrin				0.05
alpha-BHC				0.05
beta-BHC				0.05
gamma-BHC				0.05
delta-BHC				0.05
Chlordane				0.15
4,4-DDT				0.1
4,4-DDE				0.1
4,4-DDD				0.1
Dieldrin				0.1
alpha-Endosulfan				0.1
beta-Endosulfan				0.1
Endosulfan Sulfate				0.1
Endrin				0.1
Endrin Aldehyde				0.1
Heptachlor				0.05
Heptachlor Epoxide				1.0
PCB-1242				1.0
PCB-1254				1.0
PCB-1221				1.0
PCB-1232				1.0
PCB-1248				1.0
PCB-1260				1.0
PCB-1016				1.0
Toxaphene				5.0

\* Indicate units if different from µg/l

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3. Outfalls that contain any wastewater other than storm water (e.g., process wastewater, utility wastewater, domestic wastewater, groundwater, etc.) must complete TABLE B-1. Facilities that utilize land application or evaporation for wastewater treatment/disposal must also provide these analytical results.

TABLE B-1

OUTFALL 002 Sample Type: GRAB        COMPOSITE X

POLLUTANT	INFLUENT CONCENTRATION (mg/l)		NUMBER OF SAMPLES	EFFLUENT CONCENTRATION (mg/l)		NUMBER OF SAMPLES
	AVG.	MAX.		AVG.	MAX.	
BOD (5-day)					3	1
CBOD (5-day)					3	1
Chemical Oxygen Demand					19	1
Total Organic Carbon					6	1
Ammonia Nitrogen					<0.1	1
Total Suspended Solids					<4	1
Nitrate Nitrogen					42.7	1
Total Organic Nitrogen					1.1	1
Total Phosphorus					4.0	1
Oil and Grease				<5	<5	4
Total Residual Chlorine					<0.2	1
Total Dissolved Solids					716	1
Sulfate					41	1
Chloride					166	1
Fluoride					0.28	1
Fecal Coliform				51 cfu/ 100ml	90 cfu/ 100ml	3*
Temperature (°F)					NA	
pH (Standard Units; min/max)				7.0 Min.	8.0 Max.	104

POLLUTANT	EFFLUENT CONCENTRATION (µg/l)		NUMBER OF SAMPLES	MAL µg/l
	AVG.	MAX.		
Total Aluminum		<30	1	30
Total Antimony		<30	1	30
Total Arsenic		<10	1	10
Total Barium		42.3	1	10
Total Beryllium		<5	1	5
Total Cadmium		<1	1	1
Total Chromium		<10	1	10
Trivalent Chromium		<10	1	--
Hexavalent Chromium		<10	1	10
Total Copper		37.3	1	10
Cyanide, (Total, Amenable to Chlorination or Weak-Acid Dissociable)		NA		20
Total Lead		<5	1	5
Total Mercury		<0.2	1	0.2
Total Nickel		<10	1	10
Total Phenols		NA		20
Total Selenium		<5	1	10
Total Silver		2.2	1	2
Total Thallium		<10	1	10
Total Zinc		22.1	1	5

\* One sample analysis was omitted due to anomalous results and intermittent nature of discharge. All fecal samples had to be collected during one grab sample period due to intermittent discharge from the treatment plant and the limited availability of representative samples.

4. TABLE B-2 contains a list of organic compounds included in the Texas Surface Water Quality Standards at 30 TAC 307.6. TABLE B-2 must be completed with the results of an analysis of all pollutants for each outfall that contains process wastewater. In addition, an analysis for each continuously discharging nonprocess outfall (including noncontact cooling water) must be provided for only those pollutants in TABLE B-2 that are used at the facility as a feedstock, intermediate, product, byproduct, coproduct, maintenance chemical or that could in any way contribute to contamination in the wastewater streams.

TABLE B-2

OUTFALL 002\*

POLLUTANT	CONC. µg/l (*1)		NUMBER OF SAMPLES	MAL (µg/l)
	AVG.	MAX.		
Benzene				10
Benzidine				50
Benzo(a)anthracene				10
Benzo(a)pyrene				10
Bis(chloromethyl)ether (*2)				--
Carbon Tetrachloride				10
Chlorobenzene				10
Chloroform				10
Chrysene				10
Cresols				(*3)
Dibromochloromethane				10
1,2-Dibromoethane				2
1,4-Dichlorobenzene				10
1,2-Dichloroethane				10
1,1-Dichloroethylene				10
Fluoride		280	1	500
Hexachlorobenzene				10
Hexachlorobutadiene				10
Hexachloroethane				20
Methyl Ethyl Ketone				50
Nitrobenzene				10
n-Nitrosodiethylamine				20
n-Nitroso-di-n-Butylamine				20
PCB's, Total (*4)				1
Pentachlorobenzene				20
Pentachlorophenol				50
Phenanthrene				10
Pyridine				20
1,2,4,5-Tetrachlorobenzene				20
Tetrachloroethylene				10
Trichloroethylene				10
1,1,1-Trichloroethane				10
2,4,5-Trichlorophenol				50
TTHM (Total Trihalomethanes)				10
Vinyl Chloride				10

(\*1) Indicate units if different from µg/l.

(\*2) Hydrolyzes in water. Will not require applicant to analyze at this time.

(\*3) MAL's for Cresols: p-Chloro-m-Cresol 10 µg/l; 4,6-Dinitro-o-Cresol 50 µg/l; p-Cresol 10 µg/l

(\*4) Total of PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, PCB-1016.

\*Outfall 002 receives only domestic wastewater, not process wastewater. Only one parameter on this table has the potential to be present in the discharge.

5. TABLE B-3 contains testing requirements for the compound "Tributyltin" and for the indicator bacteria "enterococci." Not all applicants are required to test for tributyltin or enterococci. Testing is required only under the following conditions:

A. TRIBUTYLTIN

Testing will be required for 1) industrial/commercial facilities which directly dispose of wastewater from the types of operations listed below OR 2) domestic facilities which receive wastewater from the types of industrial/commercial operations listed below. Please check all that apply.

- ☐ 1) Manufacturers and formulators of tributyltin or related compounds, including, but not limited to SIC code 2879. Testing required.
- ☐ 2) Painting of ships, boats and marine structures, including, but not limited to SIC code 1721. Testing required.
- ☐ 3) Ship and boat building and repairing, including, but not limited to SIC codes 3731, 3732 and 3441. Testing required.
- ☐ 4) Ship and boat cleaning, salvage, wrecking and scaling, including, but not limited to SIC codes 4499 and 7699. Testing required.
- ☐ 5) Operation and maintenance of marine cargo handling facilities and marinas, including, but not limited to SIC codes 4491 and 4493. Testing required.
- ☐ 6) Facilities engaged in wood preserving, including, but not limited to, SIC code 2491. Testing required.
- ☐ 7) Any other industrial/commercial facility for which tributyltin is known to be present, or for which there is any reason to believe that tributyltin may be present in the effluent. Testing required.
- ☒ 8) None of the above. No testing required.

B. ENTEROCOCCI

Testing will be required for all dischargers directly into the Houston Ship Channel (classified stream segment nos. 1006 or 1007). Please check all that apply.

- ☐ 1) Discharge is directly to the Houston Ship Channel (classified stream segment number 1006 or 1007). Testing required.
- ☒ 2) Discharge is not directly to the Houston Ship Channel (classified stream segment number 1006 or 1007). No testing required.

TABLE B-3

N/A

OUTFALL \_\_\_\_\_

POLLUTANT	Concentration		Units	NUMBER OF SAMPLES	MAL (µg/l)
	AVG.	MAX.			
Tributyltin	_____	_____	_____	_____	0.010
Enterococci	_____	_____	_____	_____	N/A

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6. TABLE B-4 contains a list of pesticide compounds included in the Texas Surface Water Quality Standards at 30 TAC 307.6. TABLE B-4 must be completed if the facility manufactures or formulates pesticides or herbicides. Complete TABLE B-4 with the results of an analyses for each outfall that contains process wastewater or may contain pesticides or herbicides. Report an average and maximum value if more than one analytical result is available.

X N/A: This facility does not manufacture or formulate pesticides or herbicides.

TABLE B-4

N/A

OUTFALL <u>002</u>	CONCENTRATION (pg/l) *		NUMBER OF SAMPLES	MAL (pg/l)
	AVG.	MAX.		
POLLUTANT				
Aldrin				0.05
Alpha-hexachlorocyclohexane				0.05
Beta-hexachlorocyclohexane				0.05
Carbaryl				5
Chlordane				0.15
Chlorpyrifos				0.05
2,4-D				10
Danitrol				----
4,4'-DDD				0.1
4,4'-DDE				0.1
4,4'-DDT				0.1
Demeton				0.2
Diazinon				0.5
Dicofol				20
Dieldrin				0.1
Diuron				----
Endosulfan I (alpha)				0.1
Endosulfan II (beta)				0.1
Endosulfan Sulfate				0.1
Endrin				0.1
Gamma - Hexachlorocyclohexane (Lindane)				0.05
Guthion				0.10
Heptachlor				0.05
Heptachlor Epoxide				1.0
Hexachlorophene				10
Malathion				0.10
Methoxychlor				2.0
Mirex				0.2
Parathion				0.1
Toxaphene				5
2,4,5-TP (Silvex)				2

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7. Review the following TABLE B-5 and mark the appropriate column with an "X" if you believe a specific constituent to be present or absent in your discharge. Base your determination on your knowledge of raw materials, maintenance chemicals, intermediates, and products handled at your facility and/or previous analyses of your wastewater. You must provide the results of at least one analysis for each constituent believed present. Report an average and maximum value if more than one analytical result is available.

TABLE B-5

OUTFALL 002

POLLUTANT	BELIEVED	BELIEVED	CONCENTRATION		NUMBER OF
	PRESENT	ABSENT	(mg/l) *		
			AVG.	MAX	SAMPLES
Bromide	—	X	—	<6	1
Color(PCU)	X	—	—	15 Pt. Co	1
Nitrate-Nitrite(as N)	X	—	—	42.7	1
Sulfide(as S)	—	X	—	<1	1
Sulfite(as SO <sub>3</sub> )	—	X	—	<2	1
Surfactants	—	X	—	<0.1	1
Total Antimony	—	X	—	<30	1
Total Beryllium	—	X	—	<5	1
Total Boron	X	—	—	220 ug/l	1
Total Cobalt	—	X	—	<20 ug/l	1
Total Iron	—	X	—	<20 ug/l	1
Total Magnesium	X	—	—	3,475 ug/l	1
Total Molybdenum	—	X	—	<30 ug/l	1
Total Manganese	—	X	—	<10 ug/l	1
Total Thallium	—	X	—	<10 ug/l	1
Total Tin	—	X	—	<100 ug/l	1
Total Titanium	—	X	—	<50 ug/l	1

\* Indicate units if different from mg/l.

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8. Table B-6 is a list of primary industrial categories with a breakdown of Gas Chromatography/Mass Spectrometry (GC/MS) testing requirements for Priority Pollutants. Categories are defined in 40 CFR Parts 400 - 471. Check any category(s) that apply to your facility and provide the indicated analysis for Priority Pollutants listed in Table B-6.

TABLE B-6

N/A	GC/MS Testing Required			
	Volatile	Acid	Base/Neutral	Pesticides
___ Adhesives and Sealants	Yes	Yes	Yes	No
___ Aluminum Forming	Yes	Yes	Yes	No
___ Auto and Other Laundries	Yes	Yes	Yes	Yes
___ Battery Manufacturing	Yes	No	Yes	No
___ Coal Mining	No	No	No	No
___ Coil Coating	Yes	Yes	Yes	No
___ Copper Forming	Yes	Yes	Yes	No
___ Electric and Electronic Components	Yes	Yes	Yes	Yes
___ Electroplating	Yes	Yes	Yes	No
___ Explosives Manufacturing	No	Yes	Yes	No
___ Foundries	Yes	Yes	Yes	No
___ Gum and Wood Chemicals				
___ Subparts A,B,C,E	Yes	Yes	No	No
___ Subparts D,F	Yes	Yes	Yes	No
___ Inorganic Chemicals	Yes	Yes	Yes	No
___ Iron and Steel Mfg.	Yes	Yes	Yes	No
___ Leather Tanning/Finishing	Yes	Yes	Yes	No
___ Mechanical Products Mfg.	Yes	Yes	Yes	No
___ Nonferrous Metals Mfg.	Yes	Yes	Yes	Yes
___ Ore Mining(Subpart B)	No	Yes	No	No
___ Organic Chemicals,	Yes	Yes	Yes	Yes
Plastics and Synthetic Fibers				
___ Paint and Ink Formulation	Yes	Yes	Yes	No
___ Pesticides	Yes	Yes	Yes	Yes
___ Petroleum Refining	Yes	Yes	Yes	No
___ Pharmaceutical Preparations	Yes	Yes	Yes	No
___ Photographic Equipment and Supplies	Yes	Yes	Yes	No
___ Plastic Processing	Yes	No	No	No
___ Porcelain Enameling	No	No	No	No
___ Printing and Publishing	Yes	Yes	Yes	Yes
___ Pulp and Paperboard Mills				
___ Subparts A,B,C,D,R	*	Yes	*	Yes
___ Subparts F,G,H,I, K,L,M,N,O,P,	Yes	Yes	*	Yes
___ Subparts E,Q,S,T	Yes	Yes	*	Yes
___ Subparts J,U	Yes	Yes	Yes	*
___ Rubber Processing	Yes	Yes	Yes	No
___ Soap and Detergent Mfg.	Yes	Yes	Yes	No
X ___ Steam Electric Power Plants	Yes	Yes	No	No
___ Textile Mills (Not Subpart C)	Yes	Yes	Yes	No
___ Timber Products Processing	Yes	Yes	Yes	Yes

\* Test if "believed present"

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INDUSTRIAL WASTEWATER PERMITS  
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9. Table B-7 contains a list of priority pollutants. If you are a primary industry as shown in Table B-6 and process wastewater is discharged, you must analyze for those GC/MS fractions as shown in Table B-7. If you are not a primary industry and if you believe that a specific constituent (except for: acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4,6 dinitrophenol) is present in an amount greater than 10 ppb you must provide the results of at least one analysis. If you believe that acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4,6 dinitrophenol is present in an amount greater than 100 ppb you must provide results for these chemicals. Base your determination on your knowledge of raw materials, maintenance chemicals, intermediates, and products handled at your facility or analysis of your wastewater. Report an average and a maximum value if more than one analytical result is available.

TABLE B-7

OUTFALL 002\*

POLLUTANT	CONCENTRATION ( $\mu\text{g/l}$ ) *		NUMBER OF SAMPLES	MAL ( $\mu\text{g/l}$ )
	AVG.	MAX.		
VOLATILE COMPOUNDS				
Acrolein	_____	_____	_____	50
Acrylonitrile	_____	_____	_____	50
Benzene	_____	_____	_____	10
Bromoform	_____	_____	_____	10
Carbon Tetrachloride	_____	_____	_____	10
Chlorobenzene	_____	_____	_____	10
Chlorodibromomethane	_____	_____	_____	10
Chloroethane	_____	_____	_____	10
2-Chloroethylvinyl Ether	_____	_____	_____	50
Chloroform	_____	_____	_____	10
Dichlorobromomethane	_____	_____	_____	10
1,1-Dichloroethane	_____	_____	_____	10
1,2-Dichloroethane	_____	_____	_____	10
1,1-Dichloroethylene	_____	_____	_____	10
1,2-Dichloropropane	_____	_____	_____	10
1,3-Dichloropropylene	_____	_____	_____	10
Ethylbenzene	_____	_____	_____	10
Methyl Bromide	_____	_____	_____	20
Methyl Chloride	_____	_____	_____	20
Methylene Chloride	_____	_____	_____	20
1,1,2,2-Tetrachloroethane	_____	_____	_____	10
Tetrachloroethylene	_____	_____	_____	10
Toluene	_____	_____	_____	10
1,2-Trans-Dichloroethylene	_____	_____	_____	10
1,1,1-Trichloroethane	_____	_____	_____	10
1,1,2-Trichloroethane	_____	_____	_____	10
Trichloroethylene	_____	_____	_____	10
Vinyl Chloride	_____	_____	_____	10

\* Indicate units if different from  $\mu\text{g/l}$

\*Outfall 002 discharges only domestic wastewater, and is not subject to this testing.

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TABLE B-7 (con't)

OUTFALL 002\*

POLLUTANT	CONCENTRATION (µg/l) *		NUMBER OF SAMPLES	MAL (µg/l)
	AVG.	MAX.		
ACID COMPOUNDS				
2-Chlorophenol	_____	_____	_____	10
2,4-Dichlorophenol	_____	_____	_____	10
2,4-Dimethylphenol	_____	_____	_____	10
4,6-Dinitro-o-Cresol	_____	_____	_____	50
2,4-Dinitrophenol	_____	_____	_____	50
2-Nitrophenol	_____	_____	_____	20
4-Nitrophenol	_____	_____	_____	50
P-Chloro-m-Cresol	_____	_____	_____	10
Pentachlorophenol	_____	_____	_____	50
Phenol	_____	_____	_____	10
2,4,6-Trichlorophenol	_____	_____	_____	10
BASE/NEUTRAL COMPOUNDS				
Acenaphthene	_____	_____	_____	10
Acenaphthylene	_____	_____	_____	10
Anthracene	_____	_____	_____	10
Benzidine	_____	_____	_____	50
Benzo(a) Anthracene	_____	_____	_____	10
Benzo(a) Pyrene	_____	_____	_____	10
3,4-Benzofluoranthene	_____	_____	_____	10
Benzo(ghi) Perylene	_____	_____	_____	20
Benzo(k) Fluoranthene	_____	_____	_____	10
Bis(2-Chloroethoxy) Methane	_____	_____	_____	10
Bis(2-Chloroethyl) Ether	_____	_____	_____	10
Bis(2-Chloroisopropyl) Ether	_____	_____	_____	10
Bis(2-Ethylhexyl) Phthalate	_____	_____	_____	10
4-Bromophenyl Phenyl Ether	_____	_____	_____	10
Butylbenzyl Phthalate	_____	_____	_____	10
2-Chloronaphthalene	_____	_____	_____	10
4-Chlorophenyl Phenyl Ether	_____	_____	_____	10
Chrysene	_____	_____	_____	10
Dibenzo(a,h) Anthracene	_____	_____	_____	20
1,2-Dichlorobenzene	_____	_____	_____	10
1,3-Dichlorobenzene	_____	_____	_____	10
1,4-Dichlorobenzene	_____	_____	_____	10
3,3-Dichlorobenzidine	_____	_____	_____	50
Diethyl Phthalate	_____	_____	_____	10
Dimethyl Phthalate	_____	_____	_____	10
Di-n-Butyl Phthalate	_____	_____	_____	10
2,4-Dinitrotoluene	_____	_____	_____	10
2,6-Dinitrotoluene	_____	_____	_____	10
Di-n-Octyl Phthalate	_____	_____	_____	10
1,2-Diphenyl Hydrazine (as Azobenzene)	_____	_____	_____	20

\* Indicate units if different from µg/l

\* Outfall 002 discharges only domestic wastewater and is not subject to this testing.

TABLE B-7 (con't)

OUTFALL 002\*

POLLUTANT	CONCENTRATION (µg/l) *		NUMBER OF SAMPLES	MAL (µg/l)
	AVG.	MAX.		
BASE/NEUTRAL COMPOUNDS (con't)				
Fluoranthene	_____	_____	_____	10
Fluorene	_____	_____	_____	10
Hexachlorobenzene	_____	_____	_____	10
Hexachlorobutadiene	_____	_____	_____	10
Hexachlorocyclopentadiene	_____	_____	_____	10
Hexachloroethane	_____	_____	_____	20
Indeno (1,2,3-cd) pyrene	_____	_____	_____	20
Isophorone	_____	_____	_____	10
Naphthalene	_____	_____	_____	10
Nitrobenzene	_____	_____	_____	10
N-Nitrosodimethylamine	_____	_____	_____	20
N-Nitrosodi-n-Propylamine	_____	_____	_____	20
N-Nitrosodiphenylamine	_____	_____	_____	20
Phenanthrene	_____	_____	_____	10
Pyrene	_____	_____	_____	10
1,2,4-Trichlorobenzene	_____	_____	_____	10
PESTICIDES N/A				
Aldrin	_____	_____	_____	0.05
alpha-BHC	_____	_____	_____	0.05
beta-BHC	_____	_____	_____	0.05
gamma-BHC	_____	_____	_____	0.05
delta-BHC	_____	_____	_____	0.05
Chlordane	_____	_____	_____	0.15
4,4-DDT	_____	_____	_____	0.1
4,4-DDE	_____	_____	_____	0.1
4,4-DDD	_____	_____	_____	0.1
Dieldrin	_____	_____	_____	0.1
alpha-Endosulfan	_____	_____	_____	0.1
beta-Endosulfan	_____	_____	_____	0.1
Endosulfan Sulfate	_____	_____	_____	0.1
Endrin	_____	_____	_____	0.1
Endrin Aldehyde	_____	_____	_____	0.1
Heptachlor	_____	_____	_____	0.05
Heptachlor Epoxide	_____	_____	_____	1.0
PCB-1242	_____	_____	_____	1.0
PCB-1254	_____	_____	_____	1.0
PCB-1221	_____	_____	_____	1.0
PCB-1232	_____	_____	_____	1.0
PCB-1248	_____	_____	_____	1.0
PCB-1260	_____	_____	_____	1.0
PCB-1016	_____	_____	_____	1.0
Toxaphene	_____	_____	_____	5.0

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\* Indicate units if different from µg/l

\*Outfall 002 only discharges domestic wastewater and is not subject to this testing.

3. Outfalls that contain any wastewater other than storm water (e.g., process wastewater, utility wastewater, domestic wastewater, groundwater, etc.) must complete TABLE B-1. Facilities that utilize land application or evaporation for wastewater treatment/disposal must also provide these analytical results.

TABLE B-1

OUTFALL 003 Sample Type: GRAB \_\_\_\_\_ COMPOSITE X

POLLUTANT	INFLUENT CONCENTRATION (mg/l)		NUMBER OF SAMPLES	EFFLUENT CONCENTRATION (mg/l)		NUMBER OF SAMPLES
	AVG.	MAX.		AVG.	MAX.	
BOD (5-day)					3	1
CBOD (5-day)					2	1
Chemical Oxygen Demand					19	1
Total Organic Carbon					7	1
Ammonia Nitrogen					< 0.1	1
Total Suspended Solids					4	1
Nitrate Nitrogen					0.1	1
Total Organic Nitrogen					0.6	1
Total Phosphorus					0.02	1
Oil and Grease				< 5	< 5	4
Total Residual Chlorine				< 0.10	0.12	24
Total Dissolved Solids					303	1
Sulfate					110	1
Chloride					26	1
Fluoride				562	2100*	4
Fecal Coliform				< 5	< 5	4
Temperature (°F)				97°F	120°F	730
pH (Standard Units; min/max)					NA	—**

POLLUTANT	EFFLUENT CONCENTRATION (µg/l)		NUMBER OF SAMPLES	MAL µg/l
	AVG.	MAX.		
Total Aluminum		175	1	30
Total Antimony		< 30	1	30
Total Arsenic		< 10	1	10
Total Barium		366	1	10
Total Beryllium		< 5	1	5
Total Cadmium		< 1	1	1
Total Chromium		< 10	1	10
Trivalent Chromium		< 10	1	--
Hexavalent Chromium		< 10	1	10
Total Copper		< 10	1	10
Cyanide, (Total, Amenable to Chlorination or Weak-Acid Dissociable)		< 20	4	20
Total Lead		< 5	1	5
Total Mercury		< 0.2	1	0.2
Total Nickel		< 10	1	10
Total Phenols		< 20	1	20
Total Selenium		< 10	1	10
Total Silver		< 2	1	2
Total Thallium		< 10	1	10
Total Zinc		< 5	1	5

\*Fecal concentrations highly variable. Intake Maximum concentration was 700 CFU/100 ml, and average intake concentration was 253 CFU/100 ml.

\*\*This Outfall has no pH limitations.

4. TABLE B-2 contains a list of organic compounds included in the Texas Surface Water Quality Standards at 30 TAC 307.6. TABLE B-2 must be completed with the results of an analysis of all pollutants for each outfall that contains process wastewater. In addition, an analysis for each continuously discharging nonprocess outfall (including noncontact cooling water) must be provided for only those pollutants in TABLE B-2 that are used at the facility as a feedstock, intermediate, product, byproduct, coproduct, maintenance chemical or that could in any way contribute to contamination in the wastewater streams.

TABLE B-2

OUTFALL 003

POLLUTANT	CONC. µg/l (*1)		NUMBER OF SAMPLES	MAL (µg/l)
	AVG.	MAX.		
Benzene		<10	1	10
Benzidine		<50	1	50
Benzo(a)anthracene		<10	1	10
Benzo(a)pyrene		<10	1	10
Bis(chloromethyl)ether (*2)		<10	1	--
Carbon Tetrachloride		<10	1	10
Chlorobenzene		<10	1	10
Chloroform		<10	1	10
Chrysene		<10	1	10
Cresols		ND	1	(*3)
Dibromochloromethane		<10	1	10
1,2-Dibromoethane		<2	1	2
1,4-Dichlorobenzene		<10	1	10
1,2-Dichloroethane		<10	1	10
1,1-Dichloroethylene		<10	1	10
Fluoride		390	1	500
Hexachlorobenzene		<10	1	10
Hexachlorobutadiene		<10	1	10
Hexachloroethane		<20	1	20
Methyl Ethyl Ketone		<50	1	50
Nitrobenzene		<10	1	10
n-Nitrosodiethylamine		<20	1	20
n-Nitroso-di-n-Butylamine		<20	1	20
PCB's, Total (*4)		<1	1	1
Pentachlorobenzene		<20	1	20
Pentachlorophenol		<50	1	50
Phenanthrene		<10	1	10
Pyridine		<20	1	20
1,2,4,5-Tetrachlorobenzene		<20	1	20
Tetrachloroethylene		<10	1	10
Trichloroethylene		<10	1	10
1,1,1-Trichloroethane		<10	1	10
2,4,5-Trichlorophenol		<50	1	50
TTHM (Total Trihalomethanes)		<10	1	10
Vinyl Chloride		<10	1	10

(\*1) Indicate units if different from µg/l.

(\*2) Hydrolyzes in water. Will not require applicant to analyze at this time.

(\*3) MAL's for Cresols: p-Chloro-m-Cresol 10 µg/l; 4,6-Dinitro-o-Cresol 50 µg/l; p-Cresol 10 µg/l

(\*4) Total of PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, PCB-1016.

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5. TABLE B-3 contains testing requirements for the compound "Tributyltin" and for the indicator bacteria "enterococci." Not all applicants are required to test for tributyltin or enterococci. Testing is required only under the following conditions:

A. TRIBUTYLTIN

Testing will be required for 1) industrial/commercial facilities which directly dispose of wastewater from the types of operations listed below OR 2) domestic facilities which receive wastewater from the types of industrial/commercial operations listed below. Please check all that apply.

- ☐ 1) Manufacturers and formulators of tributyltin or related compounds, including, but not limited to SIC code 2879. Testing required.
- ☐ 2) Painting of ships, boats and marine structures, including, but not limited to SIC code 1721. Testing required.
- ☐ 3) Ship and boat building and repairing, including, but not limited to SIC codes 3731, 3732 and 3441. Testing required.
- ☐ 4) Ship and boat cleaning, salvage, wrecking and scaling, including, but not limited to SIC codes 4499 and 7699. Testing required.
- ☐ 5) Operation and maintenance of marine cargo handling facilities and marinas, including, but not limited to SIC codes 4491 and 4493. Testing required.
- ☐ 6) Facilities engaged in wood preserving, including, but not limited to, SIC code 2491. Testing required.
- ☐ 7) Any other industrial/commercial facility for which tributyltin is known to be present, or for which there is any reason to believe that tributyltin may be present in the effluent. Testing required.
- ☒ 8) None of the above. No testing required.

B. ENTEROCOCCI

Testing will be required for all dischargers directly into the Houston Ship Channel (classified stream segment nos. 1006 or 1007). Please check all that apply.

- ☐ 1) Discharge is directly to the Houston Ship Channel (classified stream segment number 1006 or 1007). Testing required.
- ☒ 2) Discharge is not directly to the Houston Ship Channel (classified stream segment number 1006 or 1007). No testing required.

TABLE B-3 N/A

OUTFALL _____ POLLUTANT	Concentration		Units	NUMBER OF SAMPLES	MAL (µg/l)
	AVG.	MAX.			
Tributyltin	_____	_____	_____	_____	0.010
Enterococci	_____	_____	_____	_____	N/A

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WATER PERMITS  
APPLICATIONS SECTION

6. TABLE B-4 contains a list of pesticide compounds included in the Texas Surface Water Quality Standards at 30 TAC 307.6. TABLE B-4 must be completed if the facility manufactures or formulates pesticides or herbicides. Complete TABLE B-4 with the results of an analyses for each outfall that contains process wastewater or may contain pesticides or herbicides. Report an average and maximum value if more than one analytical result is available.

X N/A: This facility does not manufacture or formulate pesticides or herbicides.

TABLE B-4

OUTFALL <u>003</u>	N/A		CONCENTRATION (µg/l)*	NUMBER OF SAMPLES	MAL (µg/l)
	AVG.	MAX.			
POLLUTANT					
Aldrin					0.05
Alpha-hexachlorocyclohexane					0.05
Beta-hexachlorocyclohexane					0.05
Carbaryl					5
Chlordane					0.15
Chlorpyrifos					0.05
2,4-D					10
Danitrol					----
4,4'-DDD					0.1
4,4'-DDE					0.1
4,4'-DDT					0.1
Demeton					0.2
Diazinon					0.5
Dicofol					20
Dieldrin					0.1
Diuron					----
Endosulfan I (alpha)					0.1
Endosulfan II (beta)					0.1
Endosulfan Sulfate					0.1
Endrin					0.1
Gamma - Hexachlorocyclohexane (Lindane)					0.05
Guthion					0.10
Heptachlor					0.05
Heptachlor Epoxide					1.0
Hexachlorophene					10
Malathion					0.10
Methoxychlor					2.0
Mirex					0.2
Parathion					0.1
Toxaphene					5
2,4,5-TP (Silvex)					2

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WASTEWATER PERMITS  
APPLICATIONS TEAM

7. Review the following TABLE B-5 and mark the appropriate column with an "X" if you believe a specific constituent to be present or absent in your discharge. Base your determination on your knowledge of raw materials, maintenance chemicals, intermediates, and products handled at your facility and/or previous analyses of your wastewater. You must provide the results of at least one analysis for each constituent believed present. Report an average and maximum value if more than one analytical result is available.

TABLE B-5

OUTFALL 003

POLLUTANT	BELIEVED	BELIEVED	CONCENTRATION (mg/l) *		NUMBER OF SAMPLES
	PRESENT	ABSENT	AVG.	MAX	
Bromide	—	X	—	<6	1
Color(PCU)	X	—	—	<5 Pt-Co	1
Nitrate-Nitrite(as N)	X	—	—	0.1	1
Sulfide(as S)	—	X	—	<1	1
Sulfite(as SO <sub>3</sub> )	—	X	—	<2	1
Surfactants	—	X	—	<0.1	1
Total Antimony	—	X	—	<30 ug/l	1
Total Beryllium	—	X	—	<5 ug/l	1
Total Boron	X	—	—	404 ug/l	1
Total Cobalt	—	X	—	<20 ug/l	1
Total Iron	X	—	—	88.6 ug/l	1
Total Magnesium	X	—	—	6,611 ug/l	1
Total Molybdenum	—	X	—	<30 ug/l	1
Total Manganese	X	—	—	66.7 ug/l	1
Total Thallium	—	X	—	<10 ug/l	1
Total Tin	—	X	—	<100 ug/l	1
Total Titanium	—	X	—	<50 ug/l	1

\* Indicate units if different from mg/l.

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APPLICATIONS

8. Table B-6 is a list of primary industrial categories with a breakdown of Gas Chromatography/Mass Spectrometry (GC/MS) testing requirements for Priority Pollutants. Categories are defined in 40 CFR Parts 400 - 471. Check any category(s) that apply to your facility and provide the indicated analysis for Priority Pollutants listed in Table B-6.

TABLE B-6

N/A	GC/MS Testing Required			
	Volatile	Acid	Base/Neutral	Pesticides
_____ Adhesives and Sealants	Yes	Yes	Yes	No
_____ Aluminum Forming	Yes	Yes	Yes	No
_____ Auto and Other Laundries	Yes	Yes	Yes	Yes
_____ Battery Manufacturing	Yes	No	Yes	No
_____ Coal Mining	No	No	No	No
_____ Coil Coating	Yes	Yes	Yes	No
_____ Copper Forming	Yes	Yes	Yes	No
_____ Electric and Electronic Components	Yes	Yes	Yes	Yes
_____ Electroplating	Yes	Yes	Yes	No
_____ Explosives Manufacturing	No	Yes	Yes	No
_____ Foundries	Yes	Yes	Yes	No
_____ Gum and Wood Chemicals				
_____ Subparts A,B,C,E	Yes	Yes	No	No
_____ Subparts D,F	Yes	Yes	Yes	No
_____ Inorganic Chemicals	Yes	Yes	Yes	No
_____ Iron and Steel Mfg.	Yes	Yes	Yes	No
_____ Leather Tanning/Finishing	Yes	Yes	Yes	No
_____ Mechanical Products Mfg.	Yes	Yes	Yes	No
_____ Nonferrous Metals Mfg.	Yes	Yes	Yes	Yes
_____ Ore Mining (Subpart B)	No	Yes	No	No
_____ Organic Chemicals,	Yes	Yes	Yes	Yes
_____ Plastics and Synthetic Fibers				
_____ Paint and Ink Formulation	Yes	Yes	Yes	No
_____ Pesticides	Yes	Yes	Yes	Yes
_____ Petroleum Refining	Yes	Yes	Yes	No
_____ Pharmaceutical Preparations	Yes	Yes	Yes	No
_____ Photographic Equipment and Supplies	Yes	Yes	Yes	No
_____ Plastic Processing	Yes	No	No	No
_____ Porcelain Enameling	No	No	No	No
_____ Printing and Publishing	Yes	Yes	Yes	Yes
_____ Pulp and Paperboard Mills				
_____ Subparts A,B,C,D,R	*	Yes	*	Yes
_____ Subparts F,G,H,I, K,L,M,N,O,P,	Yes	Yes	*	Yes
_____ Subparts E,Q,S,T	Yes	Yes	*	Yes
_____ Subparts J,U	Yes	Yes	Yes	*
_____ Rubber Processing	Yes	Yes	Yes	No
_____ Soap and Detergent Mfg.	Yes	Yes	Yes	No
X _____ Steam Electric Power Plants	Yes	Yes	No	No
_____ Textile Mills (Not Subpart C)	Yes	Yes	Yes	No
_____ Timber Products Processing	Yes	Yes	Yes	Yes

\* Test if "believed present"

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WASTEWATER PERMITS  
APPLICATIONS TEAM

9. Table B-7 contains a list of priority pollutants. If you are a primary industry as shown in Table B-6 and process wastewater is discharged, you must analyze for those GC/MS fractions as shown in Table B-7. If you are not a primary industry and if you believe that a specific constituent (except for: acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4,6 dinitrophenol) is present in an amount greater than 10 ppb you must provide the results of at least one analysis. If you believe that acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4,6 dinitrophenol is present in an amount greater than 100 ppb you must provide results for these chemicals. Base your determination on your knowledge of raw materials, maintenance chemicals, intermediates, and products handled at your facility or analysis of your wastewater. Report an average and a maximum value if more than one analytical result is available.

TABLE B-7

OUTFALL 003

POLLUTANT	CONCENTRATION ( $\mu\text{g/l}$ )*		NUMBER OF SAMPLES	MAL ( $\mu\text{g/l}$ )
	AVG.	MAX.		
VOLATILE COMPOUNDS				
Acrolein	_____	<50	1	50
Acrylonitrile	_____	<50	1	50
Benzene	_____	<10	1	10
Bromoform	_____	<10	1	10
Carbon Tetrachloride	_____	<10	1	10
Chlorobenzene	_____	<10	1	10
Chlorodibromomethane	_____	<10	1	10
Chloroethane	_____	<10	1	10
2-Chloroethylvinyl Ether	_____	<50	1	50
Chloroform	_____	<10	1	10
Dichlorobromomethane	_____	<10	1	10
1,1-Dichloroethane	_____	<10	1	10
1,2-Dichloroethane	_____	<10	1	10
1,1-Dichloroethylene	_____	<10	1	10
1,2-Dichloropropane	_____	<10	1	10
1,3-Dichloropropylene	_____	<10	1	10
Ethylbenzene	_____	<10	1	10
Methyl Bromide	_____	<20	1	20
Methyl Chloride	_____	<20	1	20
Methylene Chloride	_____	<20	1	20
1,1,2,2-Tetrachloroethane	_____	<10	1	10
Tetrachloroethylene	_____	<10	1	10
Toluene	_____	<10	1	10
1,2-Trans-Dichloroethylene	_____	<10	1	10
1,1,1-Trichloroethane	_____	<10	1	10
1,1,2-Trichloroethane	_____	<10	1	10
Trichloroethylene	_____	<10	1	10
Vinyl Chloride	_____	<10	1	10

\* Indicate units if different from  $\mu\text{g/l}$

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TABLE B-7 (con't)

OUTFALL 003

POLLUTANT	CONCENTRATION (µg/l) *		NUMBER OF SAMPLES	MAL (µg/l)
	AVG.	MAX.		
ACID COMPOUNDS				
2-Chlorophenol	_____	<10	1	10
2,4-Dichlorophenol	_____	<10	1	10
2,4-Dimethylphenol	_____	<10	1	10
4,6-Dinitro-o-Cresol	_____	<50	1	50
2,4-Dinitrophenol	_____	<50	1	50
2-Nitrophenol	_____	<20	1	20
4-Nitrophenol	_____	<50	1	50
P-Chloro-m-Cresol	_____	<10	1	10
Pentachlorophenol	_____	<50	1	50
Phenol	_____	<10	1	10
2,4,6-Trichlorophenol	_____	<10	1	10
BASE/NEUTRAL COMPOUNDS	N/A			
Acenaphthene	_____	_____	_____	10
Acenaphthylene	_____	_____	_____	10
Anthracene	_____	_____	_____	10
Benzidine	_____	_____	_____	50
Benzo(a) Anthracene	_____	_____	_____	10
Benzo(a) Pyrene	_____	_____	_____	10
3,4-Benzofluoranthene	_____	_____	_____	10
Benzo(ghi) Perylene	_____	_____	_____	20
Benzo(k) Fluoranthene	_____	_____	_____	10
Bis(2-Chloroethoxy) Methane	_____	_____	_____	10
Bis(2-Chloroethyl) Ether	_____	_____	_____	10
Bis(2-Chloroisopropyl) Ether	_____	_____	_____	10
Bis(2-Ethylhexyl) Phthalate	_____	_____	_____	10
4-Bromophenyl Phenyl Ether	_____	_____	_____	10
Butylbenzyl Phthalate	_____	_____	_____	10
2-Chloronaphthalene	_____	_____	_____	10
4-Chlorophenyl Phenyl Ether	_____	_____	_____	10
Chrysene	_____	_____	_____	10
Dibenzo(a,h) Anthracene	_____	_____	_____	20
1,2-Dichlorobenzene	_____	_____	_____	10
1,3-Dichlorobenzene	_____	_____	_____	10
1,4-Dichlorobenzene	_____	_____	_____	10
3,3-Dichlorobenzidine	_____	_____	_____	50
Diethyl Phthalate	_____	_____	_____	10
Dimethyl Phthalate	_____	_____	_____	10
Di-n-Butyl Phthalate	_____	_____	_____	10
2,4-Dinitrotoluene	_____	_____	_____	10
2,6-Dinitrotoluene	_____	_____	_____	10
Di-n-Octyl Phthalate	_____	_____	_____	10
1,2-Diphenyl Hydrazine (as Azobenzene)	_____	_____	_____	20

\* Indicate units if different from µg/l

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TABLE B-7 (con't)

## OUTFALL 003

POLLUTANT	CONCENTRATION (µg/l) *		NUMBER OF SAMPLES	MAL (µg/l)
	AVG.	MAX.		
BASE/NEUTRAL COMPOUNDS (con't) N/A				
Fluoranthene	_____	_____	_____	10
Fluorene	_____	_____	_____	10
Hexachlorobenzene	_____	_____	_____	10
Hexachlorobutadiene	_____	_____	_____	10
Hexachlorocyclopentadiene	_____	_____	_____	10
Hexachloroethane	_____	_____	_____	20
Indeno (1,2,3-cd) pyrene	_____	_____	_____	20
Isophorone	_____	_____	_____	10
Naphthalene	_____	_____	_____	10
Nitrobenzene	_____	_____	_____	10
N-Nitrosodimethylamine	_____	_____	_____	20
N-Nitrosodi-n-Propylamine	_____	_____	_____	20
N-Nitrosodiphenylamine	_____	_____	_____	20
Phenanthrene	_____	_____	_____	10
Pyrene	_____	_____	_____	10
1,2,4-Trichlorobenzene	_____	_____	_____	10
PESTICIDES N/A				
Aldrin	_____	_____	_____	0.05
alpha-BHC	_____	_____	_____	0.05
beta-BHC	_____	_____	_____	0.05
gamma-BHC	_____	_____	_____	0.05
delta-BHC	_____	_____	_____	0.05
Chlordane	_____	_____	_____	0.15
4,4-DDT	_____	_____	_____	0.1
4,4-DDE	_____	_____	_____	0.1
4,4-DDD	_____	_____	_____	0.1
Dieldrin	_____	_____	_____	0.1
alpha-Endosulfan	_____	_____	_____	0.1
beta-Endosulfan	_____	_____	_____	0.1
Endosulfan Sulfate	_____	_____	_____	0.1
Endrin	_____	_____	_____	0.1
Endrin Aldehyde	_____	_____	_____	0.1
Heptachlor	_____	_____	_____	0.05
Heptachlor Epoxide	_____	_____	_____	1.0
PCB-1242	_____	_____	_____	1.0
PCB-1254	_____	_____	_____	1.0
PCB-1221	_____	_____	_____	1.0
PCB-1232	_____	_____	_____	1.0
PCB-1248	_____	_____	_____	1.0
PCB-1260	_____	_____	_____	1.0
PCB-1016	_____	_____	_____	1.0
Toxaphene	_____	_____	_____	5.0

\* Indicate units if different from µg/l

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10. Under certain conditions, the applicant may be responsible for providing analyses of the effluent from its process wastewater outfalls for Dioxin/Furan compounds. Please review the conditions below and proceed as instructed. The applicant is required to report that 2,3,7,8 Tetrachlorodibenzo-P-Dioxin (TCDD) may be discharged if the applicant 1) knows or has reason to believe that TCDD or any congeners of TCDD will or may be present in the effluent or 2) uses or manufactures one of the following compounds:

- a. Please review the following compounds. Check those compounds which are manufactured and/or used in a process at the facility. Also provide a brief description of the conditions of its/their presence at the facility and then proceed to Item No. 10b. If none, then check N/A and proceed to Item No. 10b.

<u>X</u>	N/A
<u>      </u>	2,4,5-trichlorophenoxy acetic acid (2,4,5-T) CAS #93-76-5
<u>      </u>	2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP) CAS #93-72-1
<u>      </u>	2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon) CAS #136-25-4
<u>      </u>	0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel) CAS #299-84-3
<u>      </u>	2,4,5-trichlorophenol (TCP) CAS #95-95-4
<u>      </u>	Hexachlorophene (HCP) CAS #70-30-4

- b. If you know or have any reason to believe that 2,3,7,8 Tetrachlorodibenzo-P-Dioxin (TCDD) or any congeners of TCDD may be present in your effluent then give a brief description of the conditions for its presence below and then proceed to Item No. 10c below. If you do not have any reason to believe that TCDD may be present in your effluent then check N/A and proceed to Item No. 10c below.

X N/A

- c. If you checked N/A in both Item Nos. 10a and 10b above, then proceed to Item No. 11. Otherwise you must complete one analysis of a composite sample of each process wastewater outfall for Dioxin/Furan compounds. An additional sample of sludge from the wastewater treatment system must also be analyzed. The samples shall be analyzed and reported for congeners of chlorinated dibenzo-p-dioxins and dibenzofurans and also reported as toxicity equivalents (TEQ) based on the relative toxic equivalence factors provided in Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and Dibenzofurans (CDD's and CDF's) and 1989 Update, EPA/625/3-89/016, March 1989. TABLE 7 is provided to report the results of the congeners listed below in parts per quadrillion (ppq) for wastewater and parts per trillion (ppt) in sludges. The analyses should be made using EPA method 1613 or an equivalent method if approved by the TNRCC.

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TABLE B-8

Outfall \_\_\_\_\_

<u>Compound</u>	Equivalent Factors	Wastewater		Sludge		MAL (ppq)
		Concen- tration (ppq)	Equiva- lents (ppq)	Concen- tration (ppt)	Equiva- lents (ppt)	
2,3,7,8-TCDD	1	_____	_____	_____	_____	10.0
1,2,3,7,8-PeCDD	0.5	_____	_____	_____	_____	50.0
2,3,7,8-HxCDDs	0.1	_____	_____	_____	_____	50.0
2,3,7,8-TCDF	0.1	_____	_____	_____	_____	10.0
1,2,3,7,8-PeCDF	0.05	_____	_____	_____	_____	50.0
2,3,4,7,8-PeCDF	0.5	_____	_____	_____	_____	50.0
2,3,7,8-HxCDFs	0.1	_____	_____	_____	_____	50.0
Total			_____		_____	

## EXAMPLE:

<u>Compound</u>	Equivalent Factors	Concen- tration (ppq)	Equiva- lents (ppq)
2,3,7,8-TCDD	1	13	13
1,2,3,7,8-PeCDD	0.5	22	11
2,3,7,8-HxCDDs	0.1	17	1.7
2,3,7,8-TCDF	0.1	20	2
1,2,3,7,8-PeCDF	0.05	100	5
2,3,4,7,8-PeCDF	0.5	120	60
2,3,7,8-HxCDFs	0.1	100	10
Total TEQ			102.7

Test methods utilized must be sensitive enough to quantify the constituents at the Minimum Analytical Level (MAL) specified.

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11. a. Please answer the following questions and proceed as directed.

Are there pollutants listed in Attachment H of this application which are believed present in the discharge?

YES \_\_\_\_\_ NO X

Are there pollutants listed in Item No. 3.c. on Page No. 2 of the Industrial Wastewater Permit Application Technical Report which are believed present in the discharge and have not been analytically quantified elsewhere in this application?

YES \_\_\_\_\_ NO X

If NO to both questions then go to Item No. 12 of this attachment.

If YES to either question then proceed as directed below.

- b. Table B-9 must be completed for pollutants listed in ATTACHMENT H and for pollutants related to materials handled on-site (raw materials, intermediate products, products, etc., as listed in Item No. 5 on Page No. 2 of the Industrial Wastewater Permit Application Technical Report), which are believed to be present in a wastewater discharge.

For analytical results that are non-detect, please report the analytical values as less than the detection level (example: a result that is non-detect with a detection level of 50 ug/l should be reported as "< 50 ug/l").

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TABLE B-9

Outfall N/A

[illegible]

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12. Table B-10 must be completed for all outfalls which discharges only storm water runoff associated with "industrial activity" and are not regulated by a multi-sector general storm water permit (please refer to Attachment K for specific guidance). The discharge must be sampled and analyzed for the following pollutants at least once by grab sample during the first 30 minutes or once by a flow weighted composite sample if equipment is available for compositing by flow:

TABLE B-10

Outfall	N/A	MAXIMUM VALUES (mg/l)		AVERAGE VALUES (mg/l)		Number of Storm Events Sampled
		Grab Sample Taken During First 30 Minutes	Flow Weighted Composite Sample	Grab Sample Taken During First 30 Minutes	Flow Weighted Composite Sample	
Pollutant						
Oil and Grease			N/A			
Biochemical Oxygen Demand (BOD5)						
Chemical Oxygen Demand						
Total Organic Carbon						
Total Suspended Solids						
Total Dissolved Solids						
Total Kjeldahl Nitrogen						
Nitrate plus Nitrite Nitrogen						
Ammonia Nitrogen						
Total Phosphorus						
pH (Standard Units)		Min	Max	Min	Max	
		MAXIMUM VALUES (µg/l)		AVERAGE VALUES (µg/l)		MAL µg/l
Total Aluminum			N/A			30.0
Total Arsenic						10.0
Total Barium						10.0
Total Cadmium						1.0
Total Chromium						10.0
Trivalent Chromium						N/A
Hexavalent Chromium						10.0
Total Copper						10.0
Total Lead						5.0
Total Mercury						0.2
Total Nickel						10.0
Total Selenium						10.0
Total Silver						2.0
Total Zinc						5.0

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13. Table B-11 must be completed for every outfall which discharges only storm water runoff associated with "industrial activity" and is not regulated by a multi-sector general storm water permit (please refer to Attachment K for specific guidance). Each discharge must be sampled and analyzed for the following pollutants at least once by grab sample during the first 30 minutes or once by a flow weighted composite sample if equipment is available for composting by flow. Do not include those pollutants listed previously in TABLE B-10.

N/A

- a. Include each pollutant that is limited in a USEPA Effluent Guideline to which the facility is subject (40 CFR Part 400 - 471) except those for which the monitoring frequency is less than once per month.
- b. Include each pollutant that is limited in an existing TNRCC, NPDES, and/or TPDES permit for process water for the facility except those for which the monitoring frequency is less than once per month.
- c. Include each pollutant from TABLES B-2, B-3, and B-4 that is used at the facility as a feedstock, intermediate, product, coproduct, byproduct, maintenance chemical or that could in any way contribute to contamination of storm water runoff.
- d. Include each pollutant from TABLES B-5, B-7, B-8, and B-9, and ATTACHMENT H that you know or have reason to believe is present in outfalls containing only storm water runoff.
  - (1) For pollutants listed from TABLE B-5, either report quantitative data from the analysis of a grab sample or a flow weighted composite sample or briefly describe the reasons the pollutant is expected to be discharged.
  - (2) For pollutants listed from TABLE B-7 (except for: acrolein, acrylonitrile, 2,4 dinitrophenol, and 2-methyl-4,6 dinitrophenol) that are expected to be discharged in concentrations of 10 ppb or greater, you must submit quantitative data from the analysis of at least one grab sample or one flow weighted composite sample.
  - (3) For acrolein, acrylonitrile, 2,4 dinitrophenol, and 2-methyl-4,6 dinitrophenol, you must submit quantitative data if any of these four pollutants is expected to be discharged in concentrations of 100 ppb or greater.
  - (4) For every pollutant listed from TABLE B-7 expected to be discharged in concentrations greater than 10 ppb (or 100 ppb for the four pollutants listed above) you must either submit quantitative data or briefly describe the reasons the pollutant is expected to be discharged.
  - (5) For pollutants listed from ATTACHMENT H, explain why the pollutant is believed to be present and report any analytical data that you have. No additional analysis is required.

N/A

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TABLE B-11

[illegible]

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14. Please provide the following data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample:

a. Date of storm event: N/A

b. Duration of storm event(in minutes): N/A

c. Total rainfall during storm event (in inches): N/A

d. Number of hours between beginning of storm measured and end of previous measurable rain event: N/A

e. Maximum flow rate during rain event (gallons/minute): N/A

f. Total storm water flow from rain event (in gallons): N/A

g. Provide a description of the method of flow measurement or estimate:

N/A

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# MINIMUM ANALYTICAL LEVELS FOR APPLICATION SCREENING

POLLUTANT	CASRN*	MAL µg/l	Suggested Method
Aldrin	309-00-2	0.05	608
Alphahexachlorocyclohexane	319-84-6	0.05	608
Aluminum	7429-90-5	30	202.2
Arsenic	7440-38-2	10	206.2
Barium	7440-39-3	10	208.2
Benzene	71-43-2	10	624
Benzidine	92-87-5	50	625
Benzo [a] anthracene	56-55-3	10	625
Benzo [a] pyrene	50-32-8	10	625
Betahexachlorocyclohexane	319-85-7	0.05	608
Bis(chloromethyl) ether	542-88-1	**	**
Cadmium	7440-43-9	1	213.2
Carbon Tetrachloride	56-23-5	10	624
Carbaryl	63-25-2	5	632
Chlordane	57-74-9	0.15	608
Chlorobenzene	108-90-7	10	624
Chloroform	67-66-3	10	624
Chloropyrifos	2921-88-2	0.05	1657
Chromium	7440-47-3	10	218.2
Hexavalent Chromium	7440-47-3	10	218.4
Trivalent Chromium	7440-47-3	***	***
p-Chloro-m-Cresol	59-50-7	10	625
4,6-Dinitro-o-Cresol	534-52-1	50	625
p-Cresol	106-44-5	10	625
Copper	7440-50-8	10	220.2
Chrysene	218-01-9	10	625
Total Cyanide	57-12-5	10	335.2

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POLLUTANT	CASRN*	MAL µg/l	Suggested Method
Cyanide, Amenable to Chlorination	57-12-5	20	335.1
Cyanide, Weak Acid Dissociable	57-12-5	20	4500-CN I.
4,4'-DDD	72-54-8	0.1	608
4,4'-DDE	72-55-9	0.1	608
4,4'-DDT	50-29-3	0.1	608
2,4-D	94-75-7	10	615
Danitol	39515-41-8	****	****
Demeton	8065-48-3	0.20	1657
Diazinon	333-41-5	0.5	1657
Dibromochloromethane	124-48-1	10	624
1,2-Dibromoethane	106-93-4	2	618
Dieldrin	60-57-1	0.1	608
1,4-Dichlorobenzene	106-46-7	10	625
1,2-Dichloroethane	107-06-2	10	624
1,1-Dichloroethylene	75-35-4	10	624
Dicofol	115-32-2	20	617
Dioxins/Furans (TCDD Equivalents)			
2,3,7,8-TCDD	1746-01-6	10 <sup>-5</sup> or ppq	1613
1,2,3,7,8-PeCDD	40321-76-4	50	
2,3,7,8-HxCDDs			
1,2,3,4,7,8-HxCDD	39227-28-6	50	
1,2,3,6,7,8-HxCDD	57653-85-7	50	
1,2,3,7,8,9-HxCDD	19408-74-3	50	
2,3,7,8-TCDF	51207-31-9	10	
1,2,3,7,8-PeCDF	57117-41-6	50	
2,3,4,7,8-PeCDF	57117-31-4	50	
2,3,7,8-HxCDFs			
1,2,3,4,7,8-HxCDF	70648-26-9	50	
1,2,3,6,7,8-HxCDF	57117-44-9	50	
1,2,3,7,8,9-HxCDF	72918-21-9	50	
2,3,4,6,7,8-HxCDF	60851-34-5	50	
Endosulfan I (Alpha)	115-29-7	0.1	608
Endosulfan II (Beta)	115-29-7	0.1	608
Endosulfan sulfate	1031-07-8	0.1	608
Endrin	72-20-8	0.1	608
Fluoride	16984488	500	340.3
Gammahexachlorocyclohexane (Lindane)	58-89-9	0.05	608

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POLLUTANT	CASRN*	MAL µg/l	Suggested Method
Guthion	86-50-0	0.1	1657
Heptachlor	76-44-8	0.05	608
Heptachlor Epoxide	1024-57-3	1.0	608
Hexachlorobenzene	118-74-1	10	625
Hexachlorobutadiene	87-68-3	10	625
Hexachloroethane	67-72-1	20	625
Hexachlorophene	70-30-4	10	604.1
Lead	7439-92-1	5.0	239.2
Malathion	121-75-5	0.1	1657
Mercury	7439-97-6	0.2	245.1
Methoxychlor	72-43-5	2.0	617
Methyl Ethyl Ketone	78-93-3	50	624
Mirex	2385-85-5	0.2	617
Nitrate-Nitrogen	14797-55-8	1000	352.1
Nickel	7440-02-0	10	249.2
Nitrobenzene	98-95-3	10	625
N-Nitrosodiethylamine	55-18-5	20	625
N-Nitroso-di-n-Butylamine	924-16-3	20	625
Parathion	56-38-2	0.1	1657
Pentachlorobenzene	608-93-5	20	625
Pentachlorophenol	87-86-5	50	625
Phenanthrene	85-01-8	10	625
Polychlorinated Biphenyls (PCBs)			
PCB-1232	1336-36-3	1.0	608
PCB-1242	1336-36-3	1.0	
PCB-1254	1336-36-3	1.0	
PCB-1221	1336-36-3	1.0	
PCB-1248	1336-36-3	1.0	
PCB-1260	1336-36-3	1.0	
PCB-1016	1336-36-3	1.0	
Pyridine	110-86-1	20	625
Selenium	7782-49-2	10.0	270.2
Silver	7440-22-4	2.0	272.2
1,2,4,5-Tetrachlorobenzene	95-94-3	20	625
Tetrachloroethylene	127-18-4	10	624

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POLLUTANT	CASRN*	MAL µg/l	Suggested Method
Toxaphene	8001-35-2	5.0	608
2,4,5-TP (Silvex)	93-72-1	2.0	615
Tributyltin	688-73-3	0.010	TNRCC 1001
2,4,5-Trichlorophenol	95-95-4	50	625
Trichloroethylene	79-01-6	10	624
1,1,1-Trichloroethane	71-55-6	10	624
TTHM (Total) Chloroform Bromoform Dichlorobromomethane Chlorodibromomethane	67-66-3 75-25-2 75-27-4 124-48-1	10 10 10 10	624
Vinyl Chloride	75-01-4	10	624
Zinc	7440-66-6	5.0	289.2

- \* Chemical Abstracts Service Registry Number
- \*\* Hydrolyzes in water. Will not require applicant to analyze at this time.
- \*\*\* Trivalent Chromium (Cr) determined by subtracting Hexavalent Cr from Total Cr.
- \*\*\*\* EPA procedure not approved. Will not require applicant to analyze at this time.

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N/A

ATTACHMENT C

LAND DISPOSAL OF EFFLUENT

ATTACHMENT C IS REQUIRED FOR APPLICATIONS (NEW, AMENDMENT, OR RENEWAL) FOR FACILITIES REQUESTING AUTHORIZATION FOR DISPOSAL OF TREATED WASTEWATER VIA LAND APPLICATION.

Are you currently authorized or requesting new authorization to use land application as a method of disposal for treated effluent?

YES \_\_\_\_\_ NO X If YES, complete this attachment. If NO, do not complete and do not submit this attachment with the technical report.

Are you 1) currently authorized in your existing permit to utilize land application for disposal of your effluent AND 2) this permit application is NOT requesting changes from your existing permit conditions for those operations?

YES \_\_\_\_\_ NO \_\_\_\_\_ If YES, only items 1 through 11 are required.

Are you 1) currently authorized in your existing permit to utilize land application for disposal of your effluent AND 2) this permit application is requesting changes from your existing permit conditions for those operations?

YES \_\_\_\_\_ NO \_\_\_\_\_ If YES, items 1 through 15 are required.

Are you seeking a new authorization for the land application for disposal of effluent by either a new permit application or an amendment permit application of an existing facility not currently authorized for land disposal of effluent?

YES \_\_\_\_\_ NO \_\_\_\_\_ If YES, items 1 through 15 are required.

1. Disposal System:

( ) Surface Disposal:  
Evaporation  
Irrigation

( ) Subsurface Disposal:  
Absorption  
Percolation fields  
Evapotranspiration beds  
Subsurface soils absorption

( ) Other (describe)  
  
\_\_\_\_\_  
\_\_\_\_\_

2. Is the proposed/existing disposal site within the 100-year frequency flood level? YES \_\_\_\_\_ NO \_\_\_\_\_

If YES, describe how the site will be protected from inundation.  
  
\_\_\_\_\_  
\_\_\_\_\_

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3. Provide the following information if using irrigation for land disposal:

Area acres	Effluent Application Gallons/Day	Describe land use and indicate type of crop(s) - (alfalfa or wheat, park, golf course, landscape, etc.)	Public Access YES/NO
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

For non-public access areas, describe access controls.

\_\_\_\_\_  
\_\_\_\_\_

4. Total surface area of storage pond(s): \_\_\_\_\_ acres  
Total storage volume of storage pond(s): \_\_\_\_\_ million gallons

Provide dimensions (length, width, water depth, and freeboard) of each effluent storage/holding pond.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Describe the effluent storage/holding pond liner (e.g., compacted clay, synthetic liner, other).

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. Describe tailwater control facilities and operations, and describe how rainfall runoff will be controlled such that extraneous waters do not enter the land application site?

\_\_\_\_\_  
\_\_\_\_\_

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6. Provide the monitoring data for the previous 24 months for the parameters that are regulated in the current permit. Provide the 30-day average data if the permit includes a 30-day average limit. If the permit includes only a single grab limit, provide the maximum single grab value for the month. If monitoring is not required for any of the following parameters, indicate N/A.

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Explain any persistent excursions and discuss any corrective actions for the parameters shown in the above table and for pH, chlorine residual or other parameters that are regulated in the current permit.

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7. Submit an annual cropping plan that includes but is not limited to the following:
- a. A soils map depicting the location of the crops currently being grown. These locations should be identified by field and crop.
  - b. Type of crops and acreage irrigated for each crop.
  - c. Growing seasons for each crop.
  - d. Nutrient requirements for each crop.
  - e. Additional fertilizer requirements for each crop, proposed additional fertilizer applications for each crop, and methods of fertilizer application for each crop.
  - f. Supplemental watering requirements for each crop.
  - g. Salt tolerances of each crop.
  - h. Harvesting method and number of harvests per year for each crop.
8. Describe the application method and equipment, (e.g., row irrigation, spray irrigation using a center pivot sprinkler system, etc.). Estimate the irrigation efficiency.
9. Disposal Requirements (complete applicable section and include design calculations; include all assumptions, such as runoff, evaporation, evapotranspiration, etc.):

a. Irrigation

Area under irrigation:	_____	acres
Design application frequency:	_____	hours/day
	_____	days/week
Land grade: average:	_____	percent (%)
maximum:	_____	percent (%)
Design application rate:	_____	acre-feet/acre/year
Design Total Nitrogen loading rate:	_____	lbs N/acre/day

Provide a separate engineering report of water balance and storage volume calculations in accordance with 30 TAC Section 309.20, Subchapter C, Land Disposal of Sewage Effluent. Describe the method of application and provide a nitrogen balance for the crop system.

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b. Overland Flow

Area utilized for application: \_\_\_\_\_ acres  
Slopes for application area: \_\_\_\_\_ percent (%)  
Design application rate: \_\_\_\_\_ gpm/foot of slope width  
Slope length: \_\_\_\_\_ feet  
Design BOD<sub>5</sub> loading rate: \_\_\_\_\_ lbs BOD<sub>5</sub>/acre/day  
Design application frequency: \_\_\_\_\_ hours/day  
\_\_\_\_\_ days/week

Describe the method of application and design requirements in accordance with 30 TAC Section 317.10, Appendix B, Overland Flow Process.

c. Evaporation Ponds

Daily average effluent flow  
into pond(s): \_\_\_\_\_ gallons per day  
Surface area of pond(s): \_\_\_\_\_ acres  
Storage volume of pond(s): \_\_\_\_\_ million gallons

Provide a separate engineering report of water balance and storage volume calculations for average long term conditions and worse case conditions (i.e. high rainfall and low evaporation).

d. Evapotranspiration Beds

Number of beds: \_\_\_\_\_  
Area of bed(s): \_\_\_\_\_ acres  
Depth of bed(s): \_\_\_\_\_ feet  
Void ratio of soil in the beds: \_\_\_\_\_  
Storage volume within the beds: \_\_\_\_\_

Describe any lining to protect groundwater. Provide a separate engineering report of water balance and storage volume calculations.

e. Subsurface Soil Absorption

Type of Disposal System:

\_\_\_\_\_ Conventional Drainfield, Beds, or Trenches  
\_\_\_\_\_ Graveless Pipe  
\_\_\_\_\_ Pressure Dosing  
\_\_\_\_\_ Mound System  
\_\_\_\_\_ Drip/Trickle Irrigation  
\_\_\_\_\_ Other \_\_\_\_\_

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Application area:	_____	acres
Application rate:	_____	gal/square feet/day
Area of trench:	_____	square feet
Number of beds:	_____	
Area of bed(s):	_____	square feet
Area of drainfield:	_____	square feet
Depth to groundwater:	_____	feet
Dosing duration per area:	_____	hours
Infiltration Rate:	_____	inches/hour
Storage volume:	_____	gallons
Soil Classification:	_____	

Include all information as required in 30 TAC Section 309.20, Subchapter C, Land Disposal of Sewage Effluent. Describe the schedule of rotation for dosing basins.

10. Indicate the exact boundaries of the disposal operation on the original USGS topographic map (7.5-minute scale) of the area.
11. Provide a scale drawing and indicate on the original USGS topographic map (7.5-minute scale) all land which is to be a part of the disposal operation in addition to the following: on-site buildings, waste disposal or treatment facilities, effluent storage and tail water control facilities, buffer zones and water wells within 1 mile radius of disposal site boundaries.

Identify the water uses from each water well within a half-mile radius of the disposal site boundaries. In addition, provide aspects of construction such as well logs, casing, yield, static elevation, water quality, and age for each well. Submit copies of State Water Well Reports (driller's logs, completion data), and data on depths to ground water for water supply wells including a description of how the depths to ground water were obtained. Local groundwater resources below the wastewater disposal site shall be monitored to establish preoperational baseline groundwater quality for the following: total dissolved solids, nitrate-nitrogen, chlorides, sulfates, pH, and coliform bacteria.

12. On a U.S. Department of Agriculture (USDA) Natural Resources Conservation Service Soil Survey Map, accurately locate the area to be used for land application. Include engineering properties (No. 200 Sieve, Liquid Limit, Plasticity), soil name and mapping symbol, USDA textures and associated depths for each texture class, soil permeability for each texture class, and seasonal high water table.

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13. Provide analyses of the soil in the land application area for pH, conductivity, sodium adsorption ratio (SAR), total nitrogen, nitrate-nitrogen, potassium, phosphorous, calcium, magnesium, sulphur, and sodium. The nutrient parameters should be analyzed on a plant available or extractable basis. All results shall be reported in mg/kg dry weight basis (parts per million). When reporting the results, include all information pertaining to fertilizer recommendations. Composite sampling techniques should be used when sampling the irrigation tract. Individual soil types, as defined by the USDA Natural Resources Conservation Service soil survey, should be sampled individually at zones of 0-6, 6-18, and 18-30 inches. Each composite sample shall represent no more than 40 acres for areas located east of Interstate Highway 35 and 80 acres for areas located west of Interstate Highway 35. Each composite sample shall consist of no less than 15 subsamples. Subsamples shall be composited by zone and according to type of crop and soil for analysis and reporting.
14. Do you plan to install ground water monitoring wells or lysimeters around the land application site? . YES \_\_\_\_\_ NO \_\_\_\_\_  
If YES, submit a map indicating the location, designation, and depth of each monitor well.
15. For waste disposal activities subject to 30 TAC Chapter 213, Edwards Aquifer Rules, provide a report that describes the surface geologic units present in the proposed land application site and identifies the location and extent of any significant recharge areas in the land application site.

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## ATTACHMENT D

### TOXICITY TESTING INSTRUCTIONS

#### Toxicity Testing

To determine if your facility has a reasonable potential to cause or to contribute to receiving water toxicity, the TNRC requires that the test results of laboratory aquatic toxicity tests performed on the effluent from the following wastewaters be submitted:

1. Process wastewater outfalls and any other continuous discharge outfalls from an industrial facility subject to EPA Categorical Standards (40 CFR 400-471).
2. Process wastewater outfalls and any other continuous discharge outfalls from an industrial facility classified as an EPA Major.
3. Treated domestic wastewater from outfalls at flows of 1 MGD or greater.

External outfalls conducting routine toxicity testing as a requirement of the currently issued wastewater discharge permit do not need to be re-tested. Internal outfalls also do not need to be tested.

For those outfalls that meet one or more of criteria 1-3 above, and are not currently being tested, the TNRC will review the test results to determine the need for continued toxicity testing as a permit requirement as well as the need for an effluent toxicity limit.

#### Test Methods

The permittee shall perform two of the following toxicity tests using effluent collected from the facility. If the discharge enters freshwater (salinity of receiving water less than 2 parts per thousand), the applicant shall perform test numbers 1 and 2 below. If the discharge enters saltwater (salinity of receiving water equal to or greater than 2 parts per thousand), the applicant shall perform test numbers 3 and 4 below. Dischargers are encouraged to contact the Water Quality Assessment Team of the Water Quality Division to obtain assistance regarding the nature of the receiving water and the appropriateness of the freshwater or marine test species.

All test organisms, procedures, and quality assurance requirements used shall be in accordance with "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fourth Edition" (EPA/600/4-90/027F), or the latest revision of this document. The following tests shall be used:

1. Acute 24-hour static toxicity test using Daphnia pulex. A minimum of five (5) replicates with eight (8) organisms per replicate shall be used for this test.
2. Acute 24-hour static toxicity test using the fathead minnow (Pimephales promelas). A minimum of five (5) replicates with eight (8) organisms per replicate shall be used for this test.

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3. Acute 24-hour static toxicity test using Mysidopsis bahia. A minimum of five (5) replicates with eight (8) organisms per replicate be used for this test.
4. Acute 24-hour static toxicity test using the Inland Silverside minnow (Menidia beryllina). A minimum of five (5) replicates with eight (8) organisms per replicate shall be used for this test.

#### Toxicity Test Dilution Series

Five effluent concentrations, in addition to a control (0% effluent) shall be used in the toxicity tests. These additional effluent concentrations shall be 6%, 13%, 25%, 50%, and 100%.

#### Sample Collection

The effluent sample shall be collected at a point following the last treatment unit. A flow-weighted 24-hour composite sample will be collected from the discharge point for use during the toxicity test. A 24-hour composite sample consists of a minimum of twelve (12) effluent portions collected at equal time intervals and combined proportional to flow or a sample continuously collected proportional to flow over a 24-hour operating day.

#### Dilution Water

For tests 1 and 2, dilution water used in the toxicity tests shall be moderately hard synthetic water. For tests 3 and 4, dilution water used in the toxicity tests shall be hypersaline brine or synthetic seawater.

#### Reporting Requirements

Facilities shall determine and report the 24-hour LC50 for each species tested. Additionally the applicant shall report the mean survival (for each species) at each effluent dilution following the 24 hour exposure. The applicant shall prepare a full report of the results according to "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fourth Edition" (EPA 600/4-90/027F), Section 12, Report Preparation. The applicant shall submit the following information as an attachment to the application:

- ① The full report.
2. Table D-1 or D-2 (as appropriate), including LC50 data and mean survival (Table D-1 & D-2 forms are provided).

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